

STORIES

IN AGRICULTURE AND LIFE SCIENCES VOL.8 NO.1, 2014

IOWA IMPACTS



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STORIES

IN AGRICULTURE AND LIFE SCIENCES

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IOWA STATE UNIVERSITY

College of Agriculture and Life Sciences



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FOREWORD

WE'RE ALL IOWANS.

Our time on campus unites us all as lowans, if only for a few years.

When I interview alumni, especially those from out of state, I always ask them what drew them to Iowa State and what made their time in Ames special. Some mention the picturesque, quiet and safe campus or the legacy of agriculturalists like George Washington Carver. Overwhelmingly, they say it's the people. The professors and advisers on campus, but also the people in the community are what they say makes Iowa so "nice"—a word that has come to be known as the Midwest phenomenon "Iowa nice." And for that, they can forgive our weather.

As a land grant university, serving our state is in our collective DNA. It's what we were made to do. So, finding ways to improve the lives of lowans is always at the forefront. In this issue you'll read about partnerships working to ensure clean water for lowans, how we're battling pests that threaten our urban and rural landscapes and how extension and outreach programs are providing timely, relevant programming.

There are stories of native lowans and lowans by choice. Erich Hodges' entire family decided to settle here after getting acquainted with "Iowa nice." He joins approximately 70 percent of the college's graduating class who start their careers and begin to build a life in Iowa.

Building up our state allows us not only to serve lowans, but also to lay a strong foundation that equips lowans to serve the world.



It happened to me. It's happened to many of you over the years. My major changed its name.

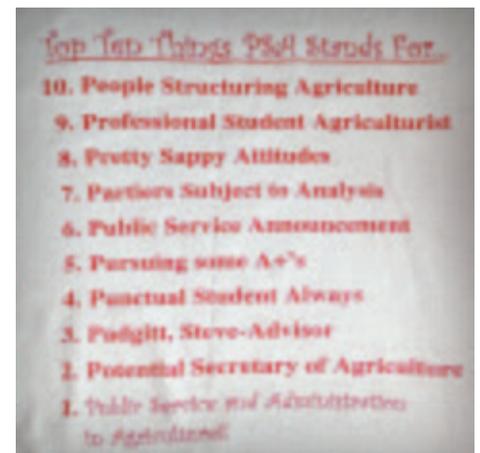
No longer will undergrads have to work to cram "public service and administration in agriculture" into tiny boxes on applications or spend half of their allotted introduction time explaining what PSA stands for.

I have to admit, I'm a bit nostalgic for PSA but the new name—agriculture and society—is a much better representation of the diverse degree that consists of cores in sociology, political science, economics and agriculture. It will be better for recruiting students and for catching the eye of potential employers. Plus, it just fits better in the little white boxes.

Kind regards,

Melea Reicks Licht

PSA Club t-shirt
circa 1998



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Morning light filters onto the playing fields near Jack Trice Stadium.

Photo: Barbara McBreen



ON THE COVER

Jamie Benning ('01 agronomy, '03 MS soil science), and her two young daughters enjoy one of Iowa's waterways near Ames. Read more about Benning, water quality program manager for ISU Extension and Outreach, and Iowa State's efforts for clean water for Iowa on page 14.



I was born and raised in Kansas, but Iowa is my home. I've come to know Iowa as a very special place. It's where I've spent much of my life and career.

It is a privilege to serve as the dean of agriculture at Iowa's land-grant university, on behalf of the education we provide to our tremendous students and for the research and extension we provide to Iowans working hard every day on behalf of Iowa's leading industry.

That's why it was gratifying to learn Iowa State was ranked *fifth worldwide for institutions of agriculture and forestry in the 2014 QS World University Rankings*. The rankings rely strongly on reputation, as informed by survey responses of tens of thousands of employers and academic peers. The rankings also take into account citations of scientific papers, another strong indicator of the standing of our faculty and our college in the eyes of the world.

Recognition like this reflects well on the state of Iowa's values and commitment to agriculture and education. It highlights Iowa State's commitment to excellence in education and opportunity, science and innovation and extension and service. I believe it's what continues to draw students in growing numbers. We now have the third largest undergraduate student body in agriculture and life sciences in the country.

We work hard to earn our reputation every day, in service to the state, the world and our students' futures. That's the Iowa way.

Wendy Wintersteen
Endowed Dean of Agriculture and Life Sciences

IOWA CONNECTIONS

NORTHWEST

320 **794** **144,500**

CALS Students Alumni Extension Assisted

BEGINNING FARMER CENTER

The Beginning Farmer Center celebrates 20 years of helping Iowa farm families, like the Schroeders, gain the skills and information they need to keep the farm in the family and continue building the family legacy.

Meet the Schroeders at www.stories.cals.iastate.edu.

SOUTHWEST

863 **1,559** **357,630**

CALS Students Alumni Extension Assisted

ARMSTRONG MEMORIAL RESEARCH AND DEMONSTRATION FARM

Iowa State University's research farm network, powered by local associations, serves as an outlet for conducting trials and sharing research results across the state. The Armstrong Memorial Research and Demonstration Farm is home to research on crop and forage management, nutrient application and All-American Variety Selection.

Check out this farm and others at www.stories.cals.iastate.edu.

*FY12 Data

21,000

College of Agriculture and Life Sciences alumni live in Iowa

Extension-sponsored events attract Iowans for training in agricultural production; food safety and human nutrition; and to improve their families

State total = 211,227

Extension works with food manufacturing, farm machinery and equipment manufacturing companies to improve their operations

State total clients served = 130
State total dollar impact = \$91,237,017

75%

of College of Agriculture and Life Sciences students are from Iowa

97%

College of Agriculture and Life Sciences overall placement rate

NORTH CENTRAL

963

CALS Students

1,518

Alumni

172,090

Extension Assisted

ANNIE'S PROJECT PREPARES FARM WOMEN

Annie's Project is designed to help farm women, like Sandra Laubenthal of Kossuth County, manage all five areas of agriculture risk: financial, human resources, legal, marketing and production.

Meet Laubenthal and learn more about the program at www.stories.cals.iastate.edu



Extension and Outreach gives Iowa State a

99 county campus.

Nearly **1,000 faculty and staff** on campus and across the state and **100 county extension offices**

SOUTHEAST

595

CALS Students

1,083

Alumni

317,000

Extension Assisted

"MARKET ON MAIN—WHERE IDEAS GROW"

Iowa State Extension's Value Added Agriculture program helps support community projects like Market on Main in Ottumwa, Iowa. A vacant business in downtown Ottumwa was recently renovated into a year-round indoor market focused on local food, which will allow producers to better connect with consumers.

Visit Market on Main at www.stories.cals.iastate.edu.

NORTHEAST

606

CALS Students

1,092

Alumni

259,270

Extension Assisted

WATER QUALITY INITIATIVE FOR SMALL IOWA BEEF AND DAIRY FEEDLOT OPERATIONS

Iowa State University Extension and Outreach hosts field days to demonstrate practices and management techniques throughout Iowa. In Dyersville, one such program helps small dairies and beef feedlots address potential water quality impacts of runoff from outside open lot areas.

Learn more at www.stories.cals.iastate.edu.



70%

of College of Agriculture and Life Sciences grads stayed in Iowa for first employment experience

IOWA AGRICULTURE:

- Iowa is second nationally in agriculture exports, valued at more than **\$7 billion**
- Iowa ranks first in the nation in **corn, soybean, pork and egg** production
- Iowa ranks fourth in cattle on feed, eighth in sheep shorn and ninth in turkey
- Iowa has **11,000+ soil types** making up some of the richest, most productive land in the world
- Iowa produces **25% of the country's supply of ethanol**, twice as much as any other state

SHARING BORLAUG'S LEGACY TO FEED AND INSPIRE

By Christina Riessen and Barbara McBreen

Norman Borlaug won the Nobel Peace Prize in 1970 for his role in alleviating hunger worldwide.

For the past six summers, Iowa State University students have interned at Borlaug's boyhood home to preserve the grounds and share his story.

The story is inspiring. Borlaug (1914-2009) was an Iowa native and agricultural scientist who grew up on a farm near Cresco. He developed disease resistant wheat, which saved millions of lives during the 1960s and '70s.

Last summer Dan Doeing, ('13 agriculture and life sciences education), received the internship and spent his summer sharing Borlaug's story.

Along with planting and maintaining the garden at the farm, Borlaug-Thomson interns assist with the Howard County Fair, lead Borlaug farm tours and work with both the Norman Borlaug Heritage Foundation and the Iowa State University Howard County Extension office.

The Borlaug-Thomson internship is funded by Jack and Fran Thomson and Maury ('65 MS agricultural education)

and Martha Kramer—friends of Borlaug and supporters of the Norman Borlaug Heritage Foundation.

"Working to preserve the legacy of such an accomplished individual made the internship rewarding," Doeing says.

Borlaug's belief that every child in the world should be well fed and have the opportunity to pursue an education was a key message in Doeing's presentations to visitors to the Borlaug farm. One of Doeing's favorite stories involved Borlaug's choice between baseball and forestry.

Borlaug wanted to be a high school science teacher and athletic coach. He also dreamed of becoming second baseman for the Chicago Cubs, but he chose forestry.

"I remember vividly the day when I finally decided that I had to do one of two things—play baseball or be a forester because we had afternoon laboratories in forestry. You couldn't do both," said Norman Borlaug, as told in an audio

history by Wessel's Living History Farms.

"The first child yelled 'Worm!' which quickly became a victory cry that echoed through the garden," Doeing says. "I was ecstatic that so many kids were interested in learning about Borlaug and agriculture. These are the future leaders of our world and it is essential that they understand the basics of agriculture."

The student interns play an important role in Inspire Day, hosted by the Norman Borlaug Heritage Foundation Board. The interns facilitate a teaching station about Borlaug's life at the program, which attracts more than 200 children from regional schools. The day is held in conjunction with Cresco's annual Borlaug Harvest Fest



Dan Doeing, 2013 intern at the Borlaug Farm, shows young visitors and their teacher around a wheat patch. Inspired to further educate youth in agriculture, Doeing is currently an agriculture instructor and FFA adviser in Oelwein, Iowa.



Iowa State University supporters **Maury** and **Martha Kramer** are among the donors who fund the Borlaug-Thomson internship. Pictured with a statue of Borlaug in Cresco are (left to right) **Ann Staudt**, Iowa Learning Farms; **Matt Helmers**, agricultural engineering; **Jason Geiken**, Iowa State University Foundation; **Wendy Wintersteen**, dean; **Maury Kramer** ('65 MS agricultural education); **Martha Kramer**; **David Acker**, associate dean; **Christina Riessen**, Borlaug intern; and **Dan Doeing**, Borlaug intern.

Photo: Contributed

and teaches students about agriculture, science, history and Borlaug's life.

Inspire Day was started by Barb Schwamann, president of the Iowa Borlaug Heritage Foundation, seven years ago.

"Barb's tireless leadership for the Inspire Day has meant a lot to me and our faculty who have participated in hands-on educational activities for local fifth graders," says Wendy Wintersteen, Dean of the College of Agriculture and Life Sciences.

"Inspire Day allows young people who come to Dr. Borlaug's farm to catch the excitement of a future that may include walking in this great agricultural scientist's footsteps," Wintersteen says. "In the end, that's the success of the partnership—measured by the wonderful faces of the students who visit the farm. Their thank-you notes are unforgettable."

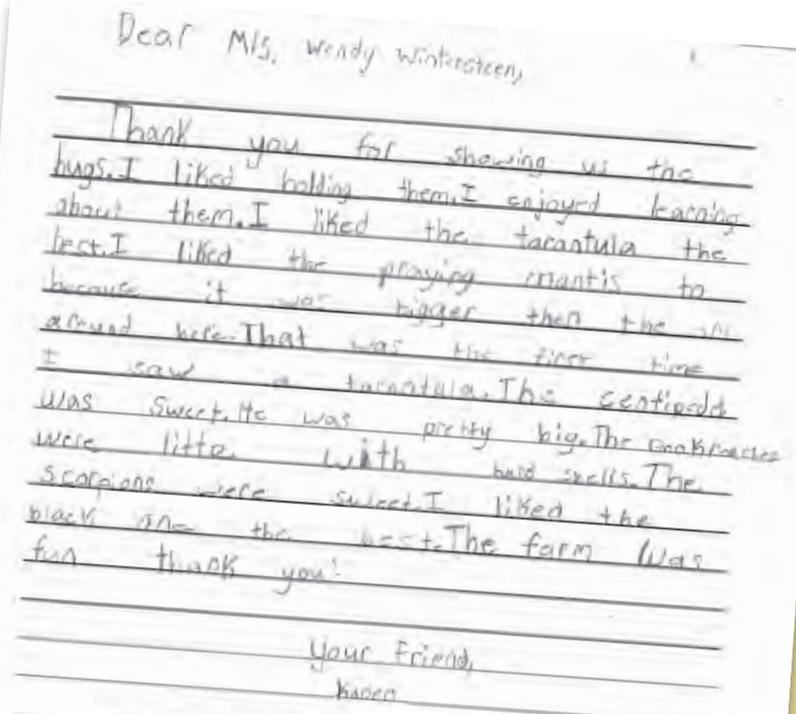
David Acker, associate dean of academic and global programs, says it's important for students to know about Norman Borlaug.

"This internship provides an opportunity to inspire the next generation of agricultural

scientists, which was a passion of Norman Borlaug," Acker says. "It is one of the most prestigious internships offered in the College of Agriculture and Life Sciences."

The internship introduces students to Borlaug's legacy and helps them share

that legacy with others. Only students in Iowa State's College of Agriculture and Life Sciences are eligible for the internship. The awardees receive a \$3,000 scholarship, a housing stipend and an eight- to 10-week paid position. ☒



Young attendees at Inspire Day are grateful to experience agriculture.

Photo: Christina Riessen



*Texas native **Alexandria Harvey** was drawn to Iowa State for the study abroad opportunities and discovered her grandparents lived and farmed in Iowa near Le Roy.*

FINDING COMMUNITY DEEP IN THE HEART OF IOWA

By Barb McBreen

What happens when your plans change from attending a college in Europe to Iowa State University? Texas native Alexandria Harvey would describe it as a whirlwind of opportunity.

Not only did Harvey ('14 environmental sciences and global resource systems) learn about farming in Iowa, she also learned her great grandparents had farmed in Iowa. Last fall she visited the farm where her great grandparents farmed near Le Roy, Iowa, which is the second smallest town in Iowa with 15 residents.

"When I came to Ames I found connections to my roots," Harvey says. "My great grandparents lived and farmed in Iowa. I also learned that my aunt and uncle (Mike Harvey, '88 animal science) met here

and got married under the campanile."

Enid Reyes, a minister in Rockwall, Texas, says having her daughter in Iowa wasn't the plan. Harvey had planned to attend college in Europe, but found that Iowa State offered numerous study abroad opportunities and scholarships.

"Iowa State offered the best of both worlds, so I enrolled without ever seeing the university," Harvey says.

Reyes can't imagine her daughter anywhere else. She's been so impressed by Iowa and the university's service to students and parents, she heads north as often as she can.

Reyes recently set up and opened Grace Center for Family and Community Development in Rockwall. She was pleased to see her daughter follow a similar

path of community betterment in Ames.

For the past year Harvey has served on the Ames City Council as the ex-officio student representative between the city and Iowa State University. Harvey says she was excited to see one of her projects make the two-year list of goals for the city.

"I sent out rental housing surveys and sat in on planning sessions. Addressing housing issues is listed as one of the goals for the City of Ames," Harvey says. "I was excited to get that on the list as one of the city's tasks."

Serving on the council seemed like a fun thing to try, but she says it changed her perspective and her career path.

"It's shaped my future. It's crazy, because now I'm really interested in the role local government plays when

Photo: Barbara McBrean



As the Iowa State student representative on the Ames City Council, Alexandria Harvey was excited to see one of her projects on addressing housing issues become a goal for the city.

it comes to resources. If you have good government everything else follows,” Harvey says. “The biggest indicator of food security is good government.”

An interest in food security led Harvey to an agronomy internship with Rafael Martinez-Feria, a graduate research assistant. Part of her internship involved collecting and comparing data on the effects of cover crops on erosion. She’d never worked with soil and plants before landing the internship.

“I didn’t know a major like agronomy existed,” Harvey says. “I got involved with the student organic farms. I did research at the Agronomy Farm, and I really enjoyed it.”

Mentoring also is something Harvey found at Iowa State. For the past three years she’s worked with Pat Miller, Iowa State Lectures program director. That’s how Harvey found out about the student position on the Ames city council.

“Alexandria quickly learned how important it was to take advantage of her opportunities to interact with visiting scholars, public officials and professionals,” Miller says.

The Lectures Programs hosts more than 130 speakers on campus each year. As a member of the University Committee on Lectures and co-chair of the World Affairs

Series planning committee, Harvey says the program helped her build confidence.

“I got to talk to and have dinner with my idol Michael Mann, climatologist and Penn State Earth System Science Center director,” says Harvey.

Since graduation, Harvey has spent the summer in Texas. Next fall she will begin a fellowship to work on her master’s in public administration and a professional master’s in environmental science at the School of Public and Environmental Affairs at Indiana University in Bloomington.

“I think water resource management will be the next big issue. It plays into every segment of development and agriculture. Water is central to everything,” she says. “The professor I want to work with has research in Latin America and works with municipalities, so I feel like it will be a good transition.”

Harvey says she’ll miss Iowa State and Ames, but the roots she discovered here have helped her move on to a world of opportunity. **S**

Photo: Contributed



Photo: Contributed

Alexandria Harvey spent one semester in Venice studying soils. During her four years at Iowa State University, Harvey traveled to Austria, Italy, Spain, Germany, Switzerland, Czech Republic, Slovenia and Slovakia.

CALS STUDENTS LEADERS ACROSS THE COUNTRY, WORLD

Jenna Tesdall, junior in global resource systems and biology, was elected president of the International Association of students in Agricultural and Related Sciences

Bailey Morrell, senior in agricultural studies, was elected national president of Students of Agronomy, Soils and Environmental Sciences

FOND FAREWELLS

Mike Duffy, professor of economics, retired in April

William Edwards ('69 agricultural economics, '71 MS, '79 PhD), professor of economics, retired in June

Roger Elmore, professor of agronomy, retired in January

Cornelia Flora, professor of sociology, retired in May

Jan Flora, professor of sociology, retired in June

Hank Harris, professor of animal science, retired in January

James Kliebenstein, professor of economics, retired in May

HEARTY HELLOS

Andrew VanLocke, assistant professor of agronomy

Georgeanne Artz ('05 PhD economics), assistant professor of economics

Christopher Currey, assistant professor of horticulture

Shawn Dorius, assistant professor of sociology

ISU RANKED AMONG TOP AGRICULTURE AND FORESTRY UNIVERSITIES IN WORLD

Iowa State University has been ranked fifth in the world among universities in the area of agriculture and forestry by a Quacquarelli Symonds (QS) World University Rankings. Last year, Iowa State ranked 10th among universities in agriculture and forestry.

HOGBERG HONORED FOR DISTINGUISHED SERVICE BY NATIONAL PORK BOARD

Maynard Hogberg ('66 agricultural and life sciences education, '72 MS animal science, '76 PhD), professor and chair of the Iowa State University Department of Animal Science was honored with the 2014 distinguished service award from the National Pork Board for his contributions to the industry.

EDWARDS RECEIVES ASFMRA DISTINGUISHED SERVICE AWARD

William Edwards ('69 agricultural business, '71 MS agricultural economics, '79 PhD), emeritus professor in economics, received the Carl F. Hertz Distinguished Service in Agriculture Award by the American Society of Farm Managers and Rural Appraisers. Edwards also was awarded the Gold Quill Award.

DOWNING AWARDED NAUMANN- THIENEMANN MEDAL

John Downing, ecology, evolution and organismal biology and agricultural and biosystems engineering, was awarded the Naumann-Thienemann medal by the International Society of Limnology. The award is the highest honor that can be bestowed internationally for outstanding scientific contributions to limnology.

RUST HONORED BY AMERICAN MEAT SCIENCE ASSOCIATION

Bob Rust, emeritus professor of animal science, received the 2013 American Meat Science Association R.C. Pollock Award. Rust is the first Iowa State professor to receive the award, which is the highest honor bestowed in the association and represents exceptional contributions to meat science and the organization.

STUDENT ORGANIZATIONS BRING HOME NATIONAL HONORS

- **Agricultural Business Quiz Bowl Team:** first place
- **Block and Bridle Club:** first place, pride of schools; first place, chapter year book; third place, club activities; third place, webpage, National Block & Bridle Convention
- **Crops Judging Team:** second place overall; first place, Ag Knowledge Bowl, North American Colleges and Teachers of Agriculture Crops Contest
- **Dairy Judging Team:** fifth place, National Dairy Cattle Judging Contest
- **Fisheries and Wildlife Club:** first place, Wildlife Society Midwest Student Conclave Quiz Bowl
- **Food Products Development Team:** second place, Dairy Research Institute's new product competition
- **Livestock Judging Team:** first place, Iowa Beef Expo; first place (reasons division), Nebraska Cattleman's Classic; second place, Sioux Empire Farm Show; third place, National Barrow Contest
- **Meat Judging Team:** first place, Southeastern Intercollegiate Meat Judging Contest; fourth place, ISU Intercollegiate Meat Judging Contest
- **National Agri-Marketing Association:** second place, NAMA Agri-Marketing Competition; first place, John Deere Signature Award; second place, Outstanding Student Chapter Award
- **Pre-Veterinary Medicine Club:** hosted the National American Pre-Veterinary Medical Association Symposium

SEASONS OF CHANGE FOR FOOD SAFETY

By Ed Adcock

Photo: Bob Elbert

Angela Shaw and John Dzubak, one of Shaw's graduate students, check the progress of beets grown for a horticulture class group project.

Change has been a constant, personally and professionally, since Angela Shaw returned to Iowa State in 2011.

As an extension food safety specialist Shaw serves as the point person helping Iowa farmers and food manufacturers deal with changes required by the Food Safety Modernization Act. The federal law updated ways food producers protect consumers from contamination. Shaw teaches short courses, holds webinars and does professional development for growers and manufacturers.

She married soon after taking her post as assistant professor in food science and human nutrition, changing her name. Last September she gave birth to a son. Her sleep patterns have since changed dramatically.

And although she was returning to her alma mater ('03 animal science, '06 MS meat science), the climate was quite a change from Texas where she earned a doctorate at Texas Tech University in animal science with an emphasis in food safety and microbiology.

“Education about best practices is important for our newest generation of food scientist and future growers,” she says.

Iowa food processors have welcomed Shaw's help. Kellen Longenecker, manager of the General Mills facility in Carlisle, says, “From the first plant visit to the Safety Day we hosted for our entire plant population, she proved to be an invaluable resource to building our food safety training.”

Adoption of the food safety law has been difficult for many in the food industry, requiring them to make changes—more paperwork, accountability and verification—that increases costs, she says.

“There are a lot of questions,” Shaw says, “but the changes are better for food safety.”

Shaw's research covers pre- and post-harvest handling of fruits and vegetables. She studies bulk grains and further processing, like juices and additives incorporated into foods.

She and her team of students are working on projects including an evaluation of sanitizing rinses for cantaloupe and watermelon to see which are most effective against major pathogens

and an online food safety module for school gardens and university gardens.

An aquaponics project to test the possibility of growing fish, leafy greens and basil in water is just getting started. The water will be rotated throughout, moving from the fish tank to fertilize the greens, then going to the basil section.

“My portion is the food safety, but we're also looking at the economics of it as well as the quality of the product produced. There are a lot of opportunities to bring fish to Iowa and not have to worry about winter. We could use barns and buildings, converting them to these units,” she says.

Shaw marvels at the opportunities she's experienced since returning to Iowa State. The transition from Texas was eased by friends who were still in the Ames area.

“A lot of the people I work with now were my teachers and mentors, so it was a wonderful fit for me to come back,” she says. 📍

EVOLVING STRATEGIES

By Ed Adcock

V S

BT RESISTANCE, ROOTWORMS

Entomologist **Aaron Gassmann** studies the scope of resistance to Bt corn by western corn rootworm (shown here in adult form) and looks for ways for farmers to manage the problem.

Entomologist Aaron Gassmann says the issue of Bt resistance is a matter of evolution.

Rootworms are developing a natural resistance to Bt corn, which is genetically engineered to produce insecticidal proteins derived from the bacterium *Bacillus thuringiensis*.

In many ways, the Bt resistance issue represents an intersection of Gassmann's professional interests: agriculture, ecology and evolution.

"The study of insects in agriculture is a natural way to address these different topics, because the development of pest resistance is so important to agriculture and such a natural application of evolutionary theory," he says.

Born and raised in Dubuque, Gassmann traveled to universities from coast to coast earning degrees and research experience in biology, chemistry, mathematics, ecology and evolution. He earned his doctorate from the State University of New York and joined the faculty at Iowa State in 2008. His appointment is mostly devoted to research, but he also teaches classes in integrated pest management, plant-insect interactions and population genetics.

The cases he uncovered of rootworm resistance to Bt are unfortunate, he says, but not surprising given the insect's adaptability.

"The western corn rootworm has a very limited rate of dispersal, which has been conducive to the development of resistance. Farmers were in essence conducting selection experiments over the 13 million acres of corn in Iowa," he says.

The first cases of resistance were found in Northeast Iowa, from fields of continuous corn where the same Bt corn hybrid had been used for at least three

years. Laboratory studies had predicted resistance when three or more generations of insects were exposed to Bt corn.

Gassmann says Bt corn is a very valuable technology mainly because it reduces the use of some conventional insecticides.

"Basically, Bt corn reduces the environmental footprint of agriculture. But one of the concerns of planting Bt crops is maintaining its effectiveness," he says.

The challenge now for Iowa growers is that there is a "mosaic" of rootworm populations across the landscape, some of which are resistant to Bt while others are susceptible.

"This complicates management for growers," he says. "So a lot of my work is understanding the scope of the problem, the risk that is associated with additional cases of resistance and then how farmers can go about managing the pest in this more complex landscape."

"The Iowa corn farmer welcomes a better understanding of how rootworms evolve under Bt pressure for long-term sustainability and to maximize the valuable technology currently available," says Rodney Williamson, Iowa Corn director of research and business development. "The research Dr. Gassmann is conducting is an important tool in the farmer's toolbox when developing the most effective management systems for rootworm control."

Gassmann's lab also is looking at the community of insect pathogens in the soil—naturally occurring ones that kill the western corn rootworm—to determine how common and important they are, but also how they might be used in conjunction with other pest management practices, such as Bt corn. 



Aaron Gassmann says the challenge now for Iowa growers is the "mosaic" of rootworm populations, some of which are resistant to Bt while others are not. His lab is looking for insect pathogens that naturally kill the western corn rootworm and how they might be used in conjunction with other pest management practices.



CUTTING A RUG IN RETIREMENT

By Melea Reicks Licht

Eric Hoiberg can dance. And, thanks to the efforts of his son, Fred, he's been doing a lot of that lately.

Former associate dean Eric Hoiberg, also known as the father of Iowa State University men's head basketball coach Fred Hoiberg, is equally proud of being Andrew's dad and Steven's dad as he is Fred's.

Fred's dance moves caught on video after a big win this season got national media attention, and as the team moved on to "the big dance" Fred's efforts on the court brought Eric and his wife Karen to their feet.



Photo: Melea Reicks Licht



Photo: Contributed

Former associate dean Eric Hoiberg and his wife Karen enjoyed watching their son Fred lead the ISU men's basketball team to "the big dance" last season. In retirement Hoiberg enjoys spending time with family including sons Andrew, Steven and Fred.

Besides cheering on the Cyclones in the Sweet Sixteen and spending time with family, Eric Hoiberg also emcees the college's annual Alumni Days open house for graduates of 50 years or earlier.

"I love hearing the stories of these extraordinary individuals," says Hoiberg. "It's good to reflect on how the college and agriculture have changed over the last 50 years."

He's got quite a story to tell himself. As associate dean for academic and state programs and a professor of sociology, he played a vital role in the life of the college and its students for more than 30 years.

Hoiberg's father was a rural sociologist. It's Karen's father (a professional basketball player) he credits for his children's athleticism. When Hoiberg came to Iowa State in 1974 from the University of Nebraska, his research focused on the changing structure of farming and its impacts on rural communities.

He reached all-star status with students serving as academic adviser for the public service and administration in agriculture program and teaching the introductory rural sociology class for more than 20 years.

"Eric Hoiberg was an outstanding teacher, adviser and counselor to hundreds of students," says Paul Lasley, chair of sociology and anthropology. "He was instrumental in creating and maintaining the public service and administration in agriculture major—now known as agriculture in society."

Serving as associate dean for academic and state programs from 1995 until his retirement in 2005 allowed Hoiberg to devote himself entirely to undergraduate education.

Hoiberg witnessed a number of changes in agriculture throughout his tenure—farm size, increased opportunities for women, advanced technology—and most recently a larger emphasis on life sciences.

He was part of the team that steered the college through reorganizing and modernizing the biological sciences to reflect the revolution in science.

"We have awakened to the tremendous diversity that exists in the term agriculture. We adapted to best serve and communicate with potential students and the public about this new definition without forsaking traditional production agriculture," Hoiberg says.

Hoiberg advanced distance education programs and worked to further partnerships with community colleges.

"I looked for ways to embed critical thinking, communication and ethical content throughout the college," Hoiberg says.

Hoiberg received numerous awards for his contributions including a USDA award for superior service and just about every teaching and advising award bestowed by the college or university.

"Dr. Hoiberg's commitment, insights and true passion to help students succeed helped launch the professional lives of many of us PSAers in industry, academia, government and broader public service. His passion and investment in us has multiplied many times over," says Dawn Thilmany McFadden ('90 public service and administration in agriculture and international agriculture), a professor and agribusiness extension economist at Colorado State University.

Hoiberg's support of students continues. The Department of Sociology created an undergraduate scholarship program in honor of Hoiberg to support students majoring in agriculture and society. **S**

STORIES ONLINE: www.stories.cals.iastate.edu

Learn more about the agriculture in society major (formerly known as public service and administration in agriculture) online.

Paul Lasley, professor and chair of sociology and chair of anthropology; Missourian by birth, Iowan by choice.

VOICES

By Paul Lasley

IOWA FARMERS AS POLICY PARTNERS, ENTREPRENEURS, OPTIMISTS



Photo: Bob Elbert

Detail of *When Tillage Begins, Other Arts Follow*, 1934 designed by Grant Wood (American, 1885-1942). Commissioned through the federal Public Works of Art Project and the National Youth Administration by Iowa State College. In the Art on Campus Collection, University Museums, Iowa State University, Ames, Iowa.

Sometimes it is fun to reflect back on how things have changed and how other things have remained the same. Given my 33 years at ISU, and my long tenure with the annual Iowa Farm and Rural Life Poll, I was asked to give voice to major themes of rural Iowa and how they've changed. As I dug through the reams of reports and data, enduring qualities of the state's farm community surfaced from throughout the past three decades.

When the first Iowa Farm and Rural Life Poll report was issued in 1982, it was evident Iowa producers were distrustful of government policies. In that first poll, nearly 9 out of 10 farmers agreed "farmers are being left out of many important agricultural decisions" and 85 percent agreed "farmers cannot count on government assistance." Just ahead of what was eventually termed the "Farm Crisis" of the 1980s, farmers were anxious about the future. In this survey 42 percent felt it was likely the quality of life for farmers would decline in the next five years, and 54 percent predicted overall economic prospects for farmers would worsen. While none of us were able to accurately predict the severity of the economic downturn that eventually unfolded, farmers sensed things were going to get worse.

Thus, the first lesson I learned from the Farm Poll was how accurate

the collective wisdom of a scientific random sample could be.

That first survey added a second observation: "It is impossible to place farmers into a single category." Whenever anyone talks about farmers, I question what subgroup of farmers they are referring to: row crop farmers, livestock producers, fiscally conservative or socially liberal, well-established or beginning, or another subgroup? Farmers are a very diverse group. Sometimes they share a common vision, but other times they are diametrically opposed.

A third observation from my years polling farmers is they are an independent group—independent thinkers, entrepreneurs and often quite vocal in expressing their opinions. Throughout the years many producers have shared their reactions to the polls, submitted their ideas for future surveys and, from time-to-time, soundly criticized the methodology or wording of questions. They leave little doubt about their level of passion about rural life, farming and community.

Throughout the history of the Iowa Farm and Rural Life Poll have been many examples of the resiliency of farm families. Through good times and bad there has always been a glimmer of hope things will improve. Perhaps it is this eternal flame of optimism that keeps farmers doing what they love.

One of the great ironies is often one only hears about tough times, low yields and weak prices, but when we've asked farmers "if they had enough money to live comfortably, would they continue farming?" nearly two-thirds said they would continue to farm. While it is not fashionable to claim one loves their job, it's pretty clear farmers are passionate about their occupations and share their love of agriculture. Their passion is often tied closely to family tradition and legacies, land ownership and stewardship.

A final observation is based on both the first and the most recent poll results: Iowa farm families want to be included in setting the agenda for agriculture and their rural communities. They have been partners in this long-term project and continue to share their stories and opinions with Iowa State University through the Iowa Farm and Rural Life Poll, for which all of us are grateful. **S**

STORIES ONLINE: www.stories.cals.iastate.edu

Read more online about Lasley's Iowa connections, including his time as a student working with Ken Larson ('54 agricultural education) and Roger Mitchell ('54 agronomy, PhD '61) and find results of the most recent Rural Life Poll.



Matthew Helmers studies nitrate movement to downstream waterbodies. At this field day near Decorah, he demonstrated water transport using the Iowa Learning Farms rainfall simulator.

RIVER TO RIVER

By Susan Thompson

WATER QUALITY WORK FOUND ON MANY FRONTS

“Iowa farmers have a tremendous responsibility to keep our soil and nutrients where they belong... I consider myself a temporary steward of my land.”

Thomas Isenhart believes Iowa is at a turning point for water quality, a true watershed moment.

“In my 25 years working on water quality in Iowa, I have never seen as much attention to the topic,” Isenhart says. “We have an unprecedented opportunity to reach across all stakeholders to develop and implement practices to improve water quality.”

An associate professor of natural resource ecology and management, Isenhart credits the increased attention on water quality to the Iowa Nutrient Reduction Strategy, which was finalized in May 2013.

Iowa State University was a partner in the strategy’s development, working with the Iowa Department of Agriculture and Land Stewardship (IDALS) and

Iowa Department of Natural Resources.

The strategy related to farmland is built on a scientific assessment of practices and associated costs to reduce loading of nitrogen and phosphorus to Iowa surface waters. The College of Agriculture and Life Sciences and IDALS partnered to conduct the assessment.

Isenhart (’83 botany and environmental studies, ’88 MS and ’92 PhD water resources) led the phosphorus portion of the study. “The assessment was an important first step in gathering all the research on agriculture and water quality within Iowa’s corn-soybean systems and comparing how individual or combined practices may reduce downstream nutrient load,” Isenhart says.

Matthew Helmers (’95 civil engineering), associate professor of agricultural and

biosystems engineering, led the team that assessed nitrogen issues for the science assessment.

“Our agricultural systems are important in Iowa but evaluating ways we can reduce downstream export of nutrients also is important,” Helmers says. “My interest is seeing agricultural systems implemented that are economically viable and environmentally friendly.”

Applying nitrogen fertilizer in the “right amount and at the right time” is an essential step, but not enough, says Helmers. “The science assessment puts the focus on practices that have the greatest potential for reducing nutrient loss.”

The need to increase voluntary efforts to reduce nutrient loss was one of the key points in the strategy. That led to an implementation phase developed by IDALS—the Iowa Water Quality Initiative.

“The initiative is built on farmers wanting to reduce their environmental impact,” says Bill Northey (’81 agricultural business), Iowa Secretary of Agriculture. In 2013, nearly \$3 million in cost-share funds were snapped up by 1,100 farmers and landowners to adopt water quality improvement practices on 120,000 acres.

In December, eight targeted priority watersheds were chosen to receive \$4.1 million over the next three years. An additional \$8 million in partner and landowner matches were secured. A second round of applications this spring resulted in another five watershed projects that will receive \$1.8 million over the next three years and be matched with \$2.2 million by partners and landowners.

“These watershed projects play an important role in demonstrating water quality practices and encouraging additional farmer adoption,” Northey says. “There’s a strong commitment among many partners to identify and deploy practices that can make a difference.”

Iowa State continues to partner by helping farmers understand what tools and practices best fit their unique land and water situation.

Some of the responsibility for that continued partnership falls to Jamie Benning (’01 agronomy, ’03 MS soil science), who was hired last fall as water quality program manager for ISU Extension and Outreach. Her duties include expanding water quality programming within extension, increasing connections with partner agencies and organizations and

identifying research and extension needs.

“Water quality is an issue that deserves additional attention,” says John Lawrence, associate dean for extension and outreach in the College of Agriculture and Life Sciences and director of ISU Agriculture and Natural Resources Extension and Outreach. “Having Jamie focus on coordinating water quality resources is a great asset.”

“Every Iowa farmer can be part of protecting our water resources,” Benning says. “Many are taking the opportunity to be involved in watershed projects, or reviewing the Iowa Nutrient Reduction Strategy for practices they can implement on their farms.”

Last fall there was a jump in the number of farmers who planted cover crops to slow winter soil erosion and reduce losses of nitrogen and phosphorus. At least 230,000 acres were planted with cover crops in 2013, compared to 65,000 acres in 2012.

Continued on following page

The number of Iowa farmers planting fall cover crops to slow winter soil erosion and reduce losses of nitrogen and phosphorus is increasing.



Jamie Benning was hired last fall as water quality program manager for ISU Extension and Outreach. Her duties include expanding water quality programming within extension, increasing connections with partner organizations and identifying research and extension needs.



Continued from previous page

Farmer Rob Stout (78 farm operations) of Washington, Iowa, has seen the success of cover crops first-hand. Farming with his father after graduation, he became interested in no-till planting, learned more at field days and purchased a no-till planter in 1983.

Besides no-till planting, Stout has built tile-inlet terraces, grassed waterways and buffer strips. He first tried cover crops five years ago.

“It was a combination of me being ready because of heavy spring rains causing erosion even in no-till fields and a program offered through the Iowa Learning Farms and Practical Farmers of Iowa. They wanted farmers to try cover crops in a research environment on 10 acres of strip trials,” Stout says.

He tried it on the 10-acre strips, liked it and increased to 80 acres the next year. Now he’s up to 600 acres of cover crops.

“Iowa farmers have a tremendous responsibility to keep our soil and nutrients where they belong and not in creeks and streams that eventually end up in the Gulf of Mexico,” Stout says. “I consider myself a temporary steward of my land.”

During the science assessment, it became clear additional research is needed to address critical gaps in knowledge regarding nitrogen and phosphorus transport. To that end, the Iowa Nutrient Research Center was established at Iowa State in 2013.

The center received \$1.5 million from the Iowa Legislature for 2013-2014 and an additional \$1.325 million for 2014-2015.

The first set of 10 projects, led by teams of scientists at Iowa State, the University of Iowa and University of Northern Iowa, includes research on bioreactors, cover crops, new technology to more accurately predict movement of nutrients and decision-support tools for farmers. ■



Iowa Secretary of Agriculture Bill Northey (left) says water quality initiatives in the state are driven by farmers like Doug Gronau (right) who want to reduce environmental impact of their operations.

Photo: Iowa Department of Agriculture and Land Stewardship

STORIES ONLINE : www.stories.cals.iastate.edu

LEARN MORE about programs working for clean water for Iowa at www.stories.cals.iastate.edu.

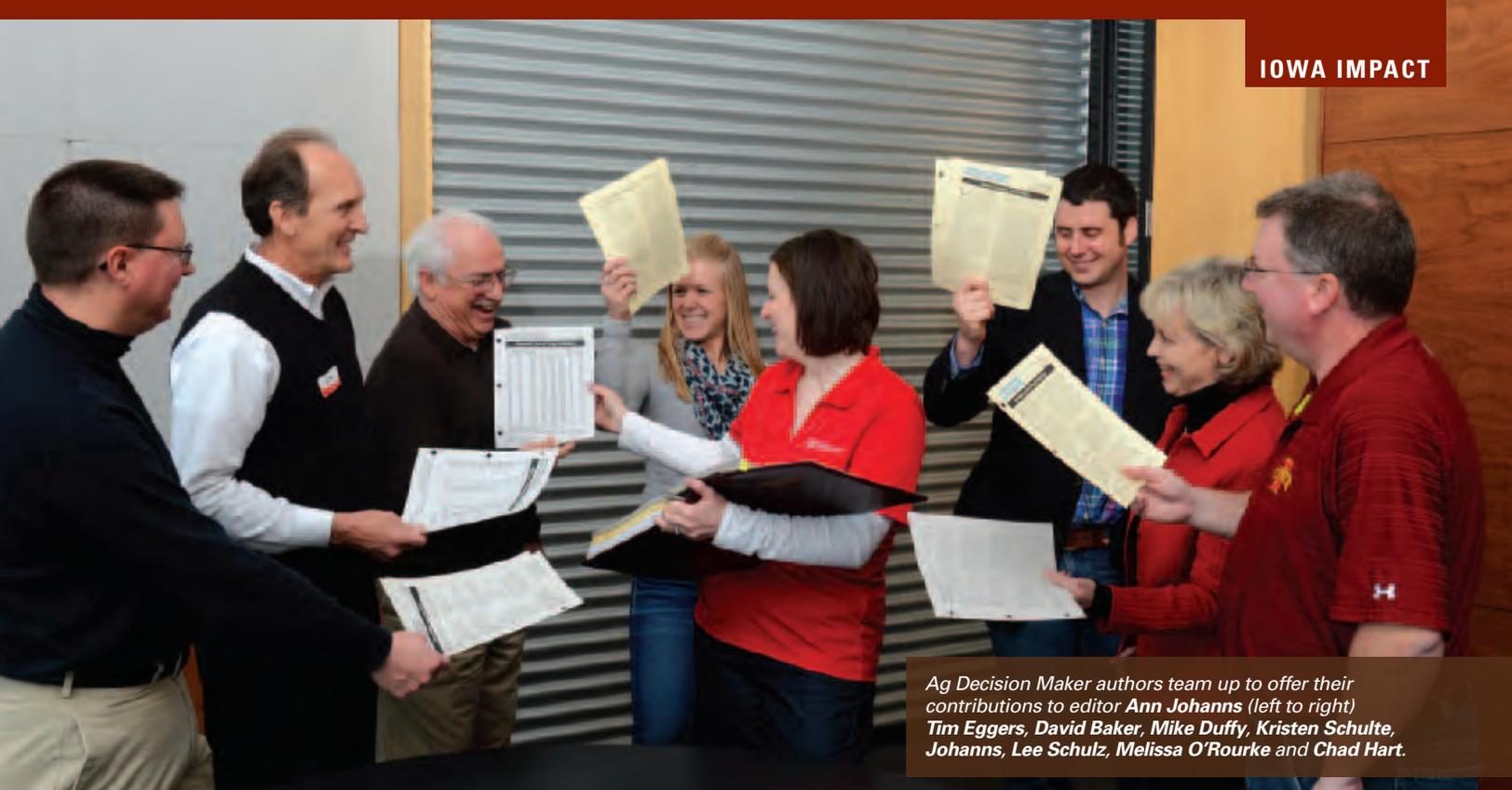
The Iowa Nutrient Reduction Strategy is a science and technology-based approach to assess and reduce nutrients delivered to Iowa waterways and the Gulf of Mexico. It is designed to direct efforts to reduce nutrients in surface water from both point sources, such as wastewater treatment plants and industrial facilities, and nonpoint sources, including farm fields and urban areas. The strategy is available at www.nutrientstrategy.iastate.edu.

The Iowa Nutrient Research Center at Iowa State was established by the Iowa Board of Regents in response to legislation passed in 2013. The center received \$1.5 million for 2013-2014 and an additional \$1.325 million for 2014-2015 for research in areas that include evaluating the performance of current and emerging nutrient management practices, providing recommendations on implementing the practices and developing new practices. See it at www.nutrientstrategy.iastate.edu/center.

The Iowa Water Quality Initiative is the implementation phase of efforts to improve water quality in Iowa and downstream. The Clean Water Iowa website is a one-stop shop for conservation practices everyone can use, whether on the farm, at a business or in a home. The site has farm, residential and urban and city and industry sections and includes descriptions of water quality practices, their benefits and links to additional information. See more online at www.cleanwateriowa.org.



Iowa Learning Farms, a program developed within ISU Extension and Outreach, calls attention to the importance of improved water and soil quality through conservation farming practices. The program utilizes partners across the state —farmer partners demonstrating various practices including reduced tillage, terraces, waterways and cover crops; educator partners teaching these lessons to the next generation of Iowa landowners; and funding partners. Learn more online at www.extension.iastate.edu/ilf/.



Ag Decision Maker authors team up to offer their contributions to editor Ann Johanns (left to right) Tim Eggers, David Baker, Mike Duffy, Kristen Schulte, Johanns, Lee Schulz, Melissa O'Rourke and Chad Hart.

Photos: Bob Elbert

CREATING A STATEWIDE CAMPUS, MAKING A DIFFERENCE FOR IOWANS

By Willy Klein

It's tough to get into Melissa O'Rourke and Kelvin Leibold's class. There is often a waiting list. The course, Evaluating Your Estate Plan, doesn't appear in the Iowa State University course catalog. It isn't offered on campus and their students are not traditional students.

O'Rourke and Leibold are farm management specialists with Iowa State University Extension and Outreach—part of an Iowa State team of educators who create course materials and deliver them as programs across Iowa to people who want farm management education and information. They carry out the Extension and Outreach core purpose of monitoring the needs of Iowans and developing educational materials to provide research-

based programs and resources to address those needs.

"In just two years, Evaluating Your Estate Plan has become a highly successful program because it fills a need we repeatedly heard from clients," says O'Rourke. "The things we heard indicated an information gap, unwarranted fears of taxation and the need for knowledge and education."

David Kading, an Iowa farmer from Casey, had questions. He attended Evaluating Your Estate Plan the first time to help his dad get a few things "squared away." He returned to the course a second time with his daughter and a third time with his son and daughter-in-law because he was determined to create his own estate plan and wanted to involve and openly commu-

nicate with his family about the plan.

"The instructors gave me the push I needed to put things in order and helped me understand what I needed to think about, the decisions I needed to make regarding my estate," says Kading. Since attending the course he has updated his will, established general and medical powers of attorney and given concentrated thought to his estate planning.

O'Rourke and Leibold are members of the Agriculture and Natural Resources (ANR) farm management team with ISU Extension and Outreach. The 15-member team, like all ANR work teams, consists of ISU Extension and Outreach faculty and staff located on campus and program specialists located around the state. Along

Continued on following page



FARM MANAGEMENT TEAM

Program Specialists

- Dave Baker
- Charles Brown
- Ryan Drollette
- Tim Eggers
- Shane Ellis
- Ann Johanns
- Steve Johnson
- Kelvin Leibold
- Melissa O'Rourke
- Kristen Schultz

Campus Specialists

- Craig Chase—local foods
- Michael Duffy—farm management
- Chad Hart—grain marketing
- Keri Jacobs—cooperatives and agribusinesses
- Lee Schulz—livestock marketing

Continued from previous page

with O'Rourke and Leibold, it took the expertise of farm management team members Tim Eggers and Ann Johanns and economics professor Georgeanne Artz to develop the Evaluating Your Estate Plan curriculum.

Chad Hart, team leader and extension crop markets economist, says there are fairly low walls within his team and they work campus-to-field and field-to-campus when creating and providing resources for sound agricultural decision making.

Hart and Lee Schulz, livestock markets economist, depend on team members around the state to promote and help present the Pro Ag Series of informative meetings offered to agricultural lenders every November. "County extension staff and farm management specialists are important when it comes to organizing the meetings, finding venues and contacting

audiences for our programs," says Hart. "Our people around the state know who needs and wants our information. They have the contacts and skills to bring people together and the campus team members depend on them."

Hart says his team responds to the educational needs of Iowa farmers and agribusiness professionals with a multi-pronged approach by offering face-to-face meetings, making educational videos and presentations available on the Web, writing information files, fact sheets and spreadsheets and sharing them through Ag Decision Maker and the Extension Online Store.

Online library is always open

Managing farm finances—things like evaluating estate plans—is complicated business. Managing the information to

Members of the farm management team supply the latest tools for farmers to make informed decisions. Pictured are (left to right) **Tim Eggers, Kristen Shulte, Kelvin Leibold, Charles Brown, Alan Barkema**—guest AgDM author, **Melissa O'Rourke, Steve Johnson, Ann Johanss and Chad Hart.**

help farmers make financial decisions also would be overwhelming if it weren't for Ag Decision Maker and the farm management team.

Don Hofstrand, retired extension specialist, started Ag Decision Maker in 1979 as a small, convenient folder of reference files for extension farm management specialists. As the need to regularly update the files became evident, so did the need to add more information files and to share the contents with a broader audience. The folder grew and became the three-inch dark maroon Ag Decision Maker binder filled with printed information files. In 2001 Ag Decision Maker added a website—and today www.extension.iastate.edu/agdm is one of the most frequently visited ISU Extension and Outreach websites.

“Ag Decision Maker information is used by farmers, lenders, farm managers, agriculture instructors and others involved in agriculture,” says Ann Johanss, Ag Decision Maker coordinator and extension farm management team member. “Our team creates a wide range of business information and tools that are used in our educational programs on marketing, leasing, land values, legal issues, costs and returns and new business development. Our library of resources is open to anyone, at any time.”

Farm management team members are the main contributors to the Ag Decision

Maker online library of resources. They also rely on expertise across Iowa State University and within the farm financial industry to build and maintain the resources contained within their agricultural economics and business website and used during educational programs.

The Evaluate Your Estate Plan materials are available online at Ag Decision Maker. When David Kading talks to his son in Colorado about the estate plan he is creating, his son can access the materials online. He doesn't have to be in Iowa to benefit from the program. The Kadings still may have questions and they may be similar to those that other farm families are asking. If so, they may be influencing the next series of farm management educational programs and decision-making information files and spreadsheets.

“When Extension and Outreach helps people do for themselves we achieve the greatest results,” says Hart. “Extension and Outreach is about people. Education is our mission. That's the whole point of a land-grant university—making a difference for Iowans.”

Each year nearly **1 million people** directly benefit from Extension and Outreach educational programs.

Farmers and agribusiness professionals participate in more than **300,000 learning opportunities**, including live meetings, one-on-one consultations and webinars.

Agriculture and Natural Resources Extension has **264 Iowa State employees**—211 on campus and 53 around the state. In addition, county extension staff members belong to area ag teams that support local programming.

Ag Decision Maker averages **5,249 visits** each day. This website gives farmers and agribusiness professionals information for sound decisions on everything from crops and livestock production to farm financial viability, new business development and renewable energy.

Nearly **1,800 farmers** attend extension meetings for information about yields, risk of frost damage on late crops and crop insurance rules annually. Farmers also access decision tools and factsheets more than **10,000 times**.

84% of agricultural bankers in Iowa are graduates of Iowa State University

BLUE RIBBON AMBASSADORS FOR AGRICULTURE AT THE IOWA STATE FAIR

By Barbara McBreen

Every year more than 1 million attendees flood the fairgrounds in Des Moines for the Iowa State Fair. Attractions range from a big boar contest to eating anything on a stick. Visitors can milk a cow, compete in a cooking competition and check out a variety of livestock, horticulture and food judging shows. The fair has agriculture at its core. That's how College of Agriculture and Life Sciences alumni, students and faculty have come to be so integral to its success. Meet a few alums, of many, who passionately support the Iowa State Fair.



John Putney poses in front of the **John L. Putney and Family Cattle Barn**. He is the retired CEO and founder of the Iowa State Fair Blue Ribbon Foundation.

BUILDING A STRONG FOUNDATION

John Putney, ('68 farm operations), retired in March from his position as executive director of the Iowa State Fair Blue Ribbon Foundation. In 1993 he started the foundation, which has generated more than \$95 million for improvements to the fairground facilities.

The foundation began with the goal of raising money for deteriorating facilities. Putney's successful fundraising efforts have changed the face of the fairgrounds. His leadership resulted in the renovation and construction of 30 fairground facilities, including

reconstruction of the Varied Industries Building and construction of the new Jacobson Exhibition Center.

Putney is a native of Gladbrook, Iowa, and has participated as an exhibitor at the Iowa State Fair, president of the Sale of Champions and beef superintendent.

Gary Slater, the Iowa State Fair CEO and manager, says, "John Putney's work not only renovated and constructed buildings; it also spurred new interest in the Fairgrounds as a rental facility and re-established the Iowa State Fair as one of the world's must-see events."

LITTLE HANDS—BIG LEARNING

Gathering and selling items at the Farmers Market in the Little Hands on the Farm exhibit at the Iowa State Fair is a hands-on way to teach children about agriculture.

It's just one of the educational exhibits at the Iowa State Fair managed by Emily Brewer, ('01 agricultural education) Iowa State Fair ag education coordinator.

"Agriculture is the foundation of the Iowa State Fair and the fair is about learning. Combining the two in a fun way is what I do," Brewer says.

Another educational attraction at the

Iowa State Fair is the Animal Learning Center, which opened in 2007. Inside the center fair attendees can witness the birth of lambs, calves, pigs and chicks.

"We have had people who will wait up to six hours to see a calf being born," Brewer says. "That's exciting."

Before coming to the State Fair in 2007, Brewer taught high school agricultural education in eastern Iowa for three years. She grew up on a crop and livestock farm near Dallas Center and is part of the fifth generation to live on the family farm.



Emily Brewer hosts a variety of educational events as the Iowa State Fair Ag Education Coordinator—including a daily butter sculpting competition and Little Hands on the Farm.



Mike Anderson takes time for a photo during a sheep judging event. He's superintendent of the 4-H Livestock exhibits, which, as he says, "includes anything with four legs and chickens."

SHOWCASING THE STATE'S BEST LIVESTOCK

Imagine scheduling 5,000 animals to be shown over a two-week period by about 1,900 4-H members.

That's exactly what Mike Anderson does at the Iowa State Fair.

"It's two weeks nonstop," Anderson says, "and after the fair it's a let down because it's over."

Since 2006, Anderson, ('00 MS animal science), has worn two hats. He is both the Iowa State University Extension and Outreach 4-H Youth development program specialist and the superintendent of the 4-H Livestock exhibits at the Iowa State Fair.

Along with managing livestock shows, Anderson coordinates curriculum and programming for 16,000 4-H members across Iowa. Educating the public about Iowa State University and agriculture is one of the programming goals throughout the year and at the fair.

"We showcase Iowa State's participation at the Iowa State Fair, so the public relates those activities to the university," Anderson says.

In August, a Commodity Carnival designed to illustrate the ups and downs of beef production will be featured at the Iowa State Fair. The educational program is for students in third through seventh grades. The game will allow the player to buy and sell grain to raise livestock. The teaching point will come at the end of the game when the player shows a profit or loss.

Anderson isn't a stranger to the Iowa State Fair. He was a member of 4-H for nine years and remembers camping at the fair and competing in the livestock shows he now oversees.

ENCOURAGING YOUTH TO EXHIBIT SUCCESS

Watching young exhibitors and communications competitors succeed is what Mitchell Hoyer enjoys. It also makes coordinating and scheduling more than 100 volunteers, daily competitions and 4,000 exhibits worth the long hours during the 14 days he spends at the Iowa State Fair.

Hoyer ('80 animal science, '81 agricultural education) is the Iowa State Fair 4-H Exhibits Building superintendent and ISU Extension and Outreach 4-H youth development program specialist. For the past 13 years he's coordinated a team of volunteers who have made the 4-H exhibits area a success.

"It's part planning, part magic and part I don't know how it happens," Hoyer says. "But, it's because we have excellent volunteers."

The 4-H members who exhibit at the Iowa State Fair have to win at the county level to be eligible. Hoyer says they are excited to be there.

"They will come in with their families and take photos next to their exhibit," Hoyer says. "Whether it's cookies, a cabinet or a photograph—it's a big deal."

Some of the more memorable exhibits included: A full-body zebra costume for a horse; a wooden chest built from the lumber of a 100-year-old tree taken down on the family farm; and a 100-year-old restored chair that survived a tornado.

"This is really about youth development and leadership opportunities for young people," Hoyer says.

Those opportunities include a competition demonstrating what they've learned. Hoyer says he's seen everything from golf to glass cutting, presentations with live goats, draft horses and even one with four albino reptiles.

The reward, he says, is when you see the smiles and the confidence of 4-H members bloom.



As the Iowa State Fair 4-H Exhibits Building coordinator, **Mitch Hoyer** has coordinated daily events for the past 13 years. He says his biggest reward is watching youth succeed.



“Don’t pack a pest. Buy it local, burn it local.”

BEATING THE BEETLE

By Darcy Maulsby

Tackling the emerald ash borer



Mark Shour, Iowa State University extension entomologist, and Robin Pruisner, entomologist for the Iowa Department of Agriculture and Land Stewardship, are part of a statewide team of experts working to detect, prevent and respond to the appearance of emerald ash borer in Iowa.

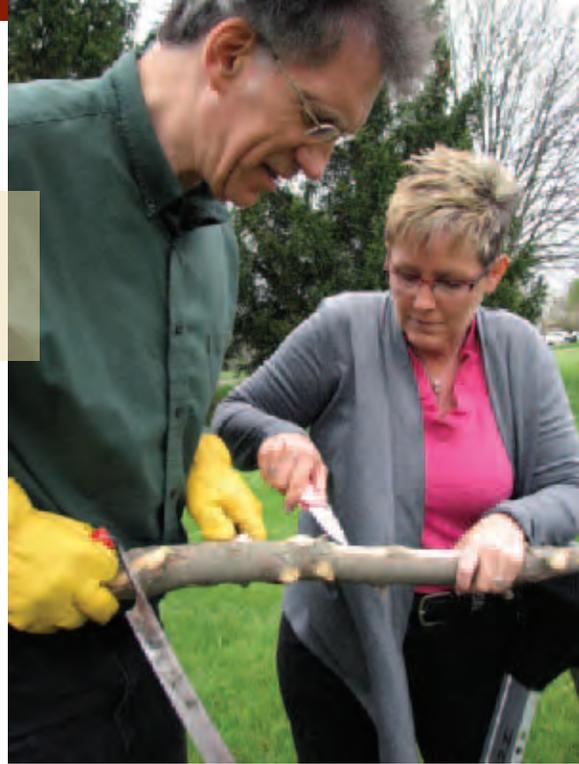


Photo: Melea Reicks Licht

While it's small in size, the emerald ash borer is bringing huge changes to the Iowa landscape.

The tiny beetle larvae leave tunnels as they eat their way through an infested tree. This destroys the tree's ability to transport water and nutrients between the canopy and the roots. Trees attacked by the emerald ash borer (EAB) will usually be killed within four years. As the destructive pest spreads, the management challenges can seem overwhelming.

"We're a river town, and much of the community's charm comes from a well-established urban canopy," says Casey Chadwick, city forester for Burlington, which is projected to lose 20 percent or more of its total canopy. "We conservatively estimate that EAB will cost us \$1 million with removals and replanting."

The stakes are even higher in Waterloo, which has more than 4,300 ash trees. "If all the public ash trees were removed by contractors, the city would have to pay approximately \$2.4 million," says Todd Derifield, Waterloo's urban forester. "To replace all of those trees, the city would have to pay approximately \$1.3 million."

Both Derifield and Chadwick appreciate educational resources from Iowa State University Extension and Outreach. Educating Iowans about EAB is vital, says

Jeff Iles, chair of the Iowa State University Department of Horticulture. "Iowans expect ISU to be out in front of issues like this and provide science-based solutions."

EAB stows away in firewood, which is how it is most often transported. An infestation is difficult to detect until the population develops in an area for three to five years, notes Mark Shour, an entomologist with Iowa State University Extension and Outreach.

Shour and his colleagues work closely with the U.S. Department of Agriculture, Iowa Department of Natural Resources and the Iowa Department of Agriculture and Land Stewardship (IDALS) to help slow the spread of EAB, which has been confirmed in Allamakee, Black Hawk, Bremer, Cedar, Des Moines, Jasper, Jefferson, Union and Wapello Counties.

There's no time to waste, says Robin Pruisner ('94 entomology, pest management), IDALS state entomologist. "EAB is too big of an issue for any one entity to handle. I value Iowa State University's proactive approach."

Iowa State University Extension and Outreach has participated in the Iowa EAB Readiness Team since EAB was first discovered in Michigan in 2002, Shour says. "This has permitted time for detailed planning and calculated responses, including tree removals, selected tree

treatments and tree replacements."

There is no one-size-fits-all strategy with EAB, says Laura Jesse, an extension entomologist. "What works for a homeowner with two ash trees may not be feasible for a golf course with 70 ash trees or a city with 5,000 ash trees."

There are proven solutions, however, to help slow the spread of EAB, starting with firewood. "As we say, don't pack a pest," Pruisner says. "Buy it local, burn it local."

Also, lining street after street with ash or any other single tree species is a flawed plan, Iles says. "We must focus on biological diversity. EAB presents a unique challenge, but it will not deter us from our continuing efforts to make our communities better places to live." ■

ASHES TO ASHES

Learn how Iowa State University is responding to the threat of emerald ash borer on campus, and how the harvested wood is finding new life as mantle clocks and keepsake boxes for sale by the Iowa State University Alumni Association at www.stories.cals.iastate.edu.



IOWA HUNGER SUMMIT

By Ann Marie Edwards

WORKING TOGETHER
TOWARDS "ONE HEALTH"



Photos: World Food Prize

Max Rothschild, distinguished animal science professor and international leader in pig genetics, and Hank Harris, one of the world's foremost authorities on infectious diseases of swine, participated in the annual Iowa Hunger Summit.

Leaders from across Iowa, including College of Agriculture and Life Sciences faculty and staff discuss research and efforts to thwart hunger each October at the annual Iowa Hunger Summit. The day-long conference was established by The World Food Prize several years ago in order to celebrate Iowa's successes in fighting hunger and poverty and to unite in further action against both.

Participants explore issues of hunger occurring in Iowa and beyond and what various humanitarian organizations, state agencies and local groups are doing to fight hunger.

Experts offer shared vision

Max Rothschild, distinguished animal science professor and international leader in pig genetics, and Hank Harris, one of the world's foremost authorities on infectious diseases of swine and related pathogens in people, were speakers on a panel, "One

Health: Healthy Animals, Healthy People, Healthy Planet” at the 2013 summit.

John Thomson, dean emeritus Iowa State University College of Veterinary Medicine, chaired the panel, which also included James Blessman of Blessman Ministries and Mary Lou Penrith, extraordinary professor of the University of Pretoria in South Africa.

Rothschild has served as the coordinator for the U.S. Department of Agriculture’s Pig Genome Mapping project. An active humanitarian both personally and professionally, he volunteers with the Emergency Residence Project and Good Neighbor Emergency Assistance in Ames and is involved with Iowa State’s Sustainable Rural Livelihoods program to help improve the quality of life for people in Uganda. He discussed his work in Uganda leading an effort to improve pig production to increase the amount of protein in people’s diets.

“Hunger, whether it is developing countries around the world or in Iowa, represents a major challenge for all of us in agriculture. It robs people of their dignity and the ability to succeed in life,” says Rothschild. “Livestock, especially in the hands of poor people, and especially female farmers, can help raise their level of food security and provide income to help their families out of poverty and improve their nutrition.”

Harris, one of the founders and a CEO of NOBL Laboratories and founder and CEO of Harrisvaccines, Inc, discussed his research in swine health and developing the next generation of vaccines for animals and humans. Harris developed the first vaccines available in the United States for the pandemic H1N1 virus and for the Porcine Epidemic Diarrhea virus (PEDV).

Harris stressed the importance of non-living platform vaccine technologies (those that do not require live viruses) for preparedness in the United States against possible foreign animal diseases.

“These same vaccines will be valuable especially in developing countries for reducing hunger as they help ensure meat supply and safety,” Harris says.

Tomorrow’s global leaders

Kelsey Upah, an Iowa State dietetics student and co-president of the Iowa State Student Dietetics Association, was part of a community nutrition class attending the summit.

“In class we explore how different counties in Iowa are dealing with hunger issues,” she says. “The summit gave us insight into what is happening in Iowa, throughout the United States and the world and provided ideas about programs we could implement in our association.”

Catherine Swoboda (’08 agronomy, ’10 MS crop production and physiology) serves as director of Iowa and Midwest Education Programs for The World Food Prize Foundation and organized the summit. She received the Iowa State Alumni Association’s Outstanding Young Alumni Award last fall.

“Iowa State faculty members are spectacular examples of the research and efforts improving access to food and improving the livelihoods of people in our state and around the world,” Swoboda says.

In addition to the annual summit, Swoboda created the Iowa Youth Institute, a joint initiative between the World Food Prize and Iowa State University to encourage high school students to confront global challenges in agriculture and environmental sustainability.

At the institute, which takes place each April, high school students present research and recommendations on how to solve key global challenges. While on campus they interact with global leaders in science, industry and policy during educational sessions and interactive tours.

They connect with other students from across Iowa to share ideas and identify solutions while building lasting friendships.

“Iowa State has been an important partner in making the institute a valuable program for future leaders who will help address hunger issues for our growing world,” Swoboda says. ■

Photo: World Food Prize



High school students participate in the annual Iowa Youth Institute, a joint initiative between the World Food Prize and Iowa State University to encourage high school students to confront challenges in agriculture and sustainability.

IGNITING AN INTEREST IN AGRISCIENCE

By Melea Reicks Licht



Photo: Contributed

Students from the Southeast Polk FFA Chapter host the Animal Learning Center at the Iowa State Fair each year, educating 750,000 visitors per year about livestock care.

Matthew Eddy taps his forehead. “Remember what you’re forgetting,” he tells one of his students.

They are getting ready to set fire to various feedstuffs. The student nods as she realizes she’s forgotten her safety glasses. Students measure the mass of the feedstuff before and after the burn. The change in temperature of a known quantity of water will indicate how much energy is released from each type of feed.

The students are excited. Eddy smiles and walks over with his small torch after a student calls out, “Bring the heat, Eddy! We’re ready.”

The flame grabs hold of the hay and begins to smolder. Students snap photos with cell phone cameras. Tweets abound. (#agedrocks #playingwithfire)

Eddy (’99 agricultural and life sciences education, ’08 MS) and his Southeast Polk High School agriculture students use the Curriculum for Agricultural Science Education (CASE). The national program was designed by agricultural educators and launched in 2009.

Thanks to grants Eddy successfully landed, the agriculture lab gives students a glimpse into technology similar to what’s available at multinational agribusinesses.

“I could do these labs with a Dixie cup, but that’s not what Pioneer does,” Eddy says. “This equipment is the same stuff you’ll find in biotechnology labs in industry.”

Having a packaged curriculum and receiving training to implement it takes a lot off of teachers’ plates, Eddy says, so they can focus on maximizing students’ experience.

Ready-made curriculum

“The CASE curriculum is like a paint-by-number to Picasso,” Eddy says. “It helps new teachers deal with the rigors of creating such a program from scratch. It provides much needed structure for teachers of all experience levels. And CASE provides continuity for school districts experiencing turnover.”

Mike Retallick (’05 PhD agricultural and life sciences education), associate professor of agricultural education and studies at Iowa State University, coordinates certification in CASE for Iowa educators.

Last summer nearly 80 Iowa agriculture teachers were certified to help students advance in math and science under Retallick’s leadership. He represents Iowa on the national advisory board of CASE and as the state leader he works with teachers hired to train agriculture educators on how to implement new curriculum.

“This program increases student understanding in math and science through the context of agriculture,” Retallick says. “The inquiry-based teaching methods used in CASE develop

ADDRESSING THE SHORTAGE OF AG TEACHERS

Like many surrounding states, Iowa is experiencing a shortage of high school agriculture teachers while enrollment in agriculture classes and FFA membership is at an all-time high. Part of the shortage is due to established programs hiring additional teachers and school districts starting new agriculture programs. Wade Miller, professor and interim chair of agricultural education and studies, says, “we see approximately 25 openings for agriculture teachers in Iowa each year and have only a handful of applicants.” Current agriculture teachers are being tapped to help recruit students. Scholarships for teacher certification students at Iowa State are also targeting future teachers, and a seminar sponsored by the Iowa Association for Agricultural Education and Iowa State University at the annual Iowa FFA Leadership Conference serves to spark the interest of future teachers.



Matthew Eddy is one of nearly 80 Iowa agriculture teachers certified in a curriculum to help students excel in math and science. Here students learn about energy conversion by burning feedstuffs.

EDDY EARNS ALL A'S FOR TEACHING EXCELLENCE

Matthew Eddy has received numerous honors for his hands-on approach to education. In addition to the below awards, Eddy will receive the Outstanding Young Alumni Award from the Iowa State University Alumni Association this October.

- National Association of Agricultural Educators Region III Outstanding Teacher
- National Association of Agricultural Educators Teach Ag Campaign Champion
- Christopher Columbus Fellowship Foundation - Agriscience Teacher
- Iowa Association of Agricultural Educators Outstanding Teacher
- Iowa Association of Agricultural Educators Outstanding Agriculture Education Program
- Iowa Association of Agricultural Educators Agriscience Teacher of the Year

students into problem solvers, critical thinkers and lifelong learners.”

The Iowa Governor’s STEM (Science, Technology, Engineering and Math) Advisory Council awarded funding for the program to Iowa’s TEAM AgEd, which promotes agricultural education. The team includes Iowa State’s agricultural education and studies department, the Iowa Department of Education, Iowa agriculture teachers, the Iowa FFA Association and the Iowa FFA Foundation.

87% of Iowa agriculture teachers are Iowa State University grads

Josh Remington (’06 horticulture), executive director of the Iowa FFA Foundation, Eddy, Retallick and several other high school agriculture teachers prepared the grant proposal. The grants aim to boost student interest and achievement in STEM topics.

The grant funded access to the curriculum, equipment and 80 hours of professional development.

Introducing students to agriculture

Drawn in by science—and curiosity—students in Eddy’s classes are exposed

to concepts that run the gamut of the agriculture industry. Agriculture courses in his urban-based school near Des Moines are full. “Out of our 200 FFA members, I can count on one hand the number that are from a farm,” Eddy says.

The focus on science allows him to reach students not otherwise engaged in agriculture. He can spark an interest in science for those not motivated to understand basic science concepts.

“I’ve found that a student who is getting C’s and D’s in science seem to get it here. We’re doing the same science, but in a way that frames it in the real world,” Eddy says. “The best part is awakening the kids who won’t think they’ll like science or agriculture, then they do.”

Eddy says agriculture should be required coursework for all U.S. high schoolers. “Students don’t know how or where their food is produced. They don’t understand the technology or the process involved,” Eddy says. “We can help fill the gap so they may have informed opinions as adult consumers.”

Multifaceted approach

The CASE curriculum is one component of Eddy’s agricultural program that, like others, includes supervised agricultural experiences to allow students to explore

agricultural careers before graduation. The experiences range from home gardens to part-time jobs in agricultural businesses to raising animals or crops for profit. Keeping careful records allows students to gain business skills and learn from both successes and setbacks in a supportive environment.

The Southeast Polk FFA Chapter also hosts the Animal Learning Center at the Iowa State Fair each year, which gives nonfarm students the opportunity to interact with animals while teaching the public about livestock. The chapter educates 750,000 visitors per year about how the animals are raised and handled. The hands-on experience in production agriculture complements CASE’s science-based curriculum.

Once familiar with agriculture, Eddy says his students are excited by the opportunities they see in the industry. “Ag is cool again,” he says. “It’s thriving, and they’re excited by the career possibilities.”

STORIES ONLINE: www.stories.cals.iastate.edu

Hear more from Matt Eddy in his entry to the U.S. Department of Education Blog “The Toughest Job You’ll Ever Love” online and view more photos from his agriscience lab and FFA programs.



IOWA FFA OFFICER TEAM

By Barbara McBreen

“ I BELIEVE IN THE FUTURE OF AGRICULTURE ”

Every member of the 2013-14 Iowa FFA officer team was enrolled at Iowa State University last year. The nine students are from every corner of Iowa and they have some thoughts to share about FFA and their future dreams. The officers posed in front of the Iowa FFA Enrichment Center on the Des Moines Area Community College campus in Ankeny, Iowa.

Josh Earll, junior in agricultural and life sciences education from Sibley, Iowa
Iowa FFA president, 2013-14

What is your favorite FFA memory?

My father is an agricultural education teacher at Sibley-Ocheyedan High School and I've always enjoyed spending time with him on FFA projects.

Why and how does this organization benefit students?

Whether it's scholarships, class work or supervised agricultural experiences, students in FFA have many opportunities to grow as individuals. This is a student-led organization. Every decision made in this organization is made by students. FFA is unique because of the opportunities students can pursue.

What is your dream?

I hope to pursue a career as an auctioneer, realtor or appraiser.

James Leonard, sophomore in agricultural business from Newton, Iowa
Iowa FFA vice-president, 2013-14

How does FFA serve others and how has it helped you become your best?

At the Washington D.C. Leadership Conference, I made lasting friendships, but I also learned a lot about myself and from students around the world. I had the chance to make a difference that week working at a battered women's shelter. We helped clean the shelter and talked with the women at the shelter. My FFA experience also helped me conquer my public speaking fears.

What is your dream?

My goal is to pursue a career in agricultural business and accounting and ultimately go back to help manage my family farm in Jasper County.

Trey Forsyth, a junior in agricultural business from Charles City, Iowa
Iowa FFA north central state vice-president, 2013-14

How did FFA help you find your voice?

On our way to State Convention my adviser had me stand outside a restaurant to practice the FFA Creed to prepare for the state contest, while everyone else stood inside and watched. Everyone at the restaurant looked at me like I was crazy. Our chapter has carried on this tradition ever since.

State FFA officers from left to right: **Tony Moellers, Abrah Meyer, James Leonard, Logan Kelly, Josh Earll, Trey Forsyth, Brad Pickhinke, Lauren Weirup and Dylan Brockshus.**

What did that experience teach you about public speaking?

It taught me that sometimes the only way to get better is to go outside your comfort zone. If you never take new challenges—you will never grow as a leader.

What is your dream?

I hope to work for an agricultural business after graduating from Iowa State.

Brad Pickhinke, a junior in agricultural biochemistry from Sac City, Iowa Iowa FFA reporter 2013-14

Is FFA just about agriculture?

FFA is about learning to be a leader and a communicator. FFA has taught me how to be an efficient communicator, leader and even how to swing dance. It excites me because of the passion and unity you see from every member across the nation. The blue jacket is sign of hard work, integrity and belief in the future of agriculture.

What is your dream?

To positively impact the lives of others at home and around the world through my work with agriculture.

Tony Moellers, a sophomore in agronomy from North Union, Iowa Iowa FFA northeast state vice-president

What unique opportunities has FFA provided?

I would not have the skills or be where I am today without being in this organization. I have been fortunate to travel, lead and network through FFA. Being a state FFA officer has been the best experience of my life and every day brings something new. Even when you think you can't, remember it is better to aim for the sky and miss, than to aim for a manure pile and hit it.

What is your dream?

It is my dream to use the skills I've learned through FFA to become successful in my career. I would like to work for Stine,

Monsanto or Pioneer in the area of seed sales. I also hope to have a wonderful family.

Abrah Meyer, sophomore in agricultural business from Readlyn, Iowa Iowa FFA state secretary

How does FFA build relationships?

I started working at the Iowa State Fair as a stage attendant for FFA during my sophomore year of high school. I met a few of my best friends there, and I will never forget the memories we shared. FFA has helped me form some of the greatest friendships in my life. I never thought that there would be so many experiences that apply to college, relationships and life in general. This year has provided me with an incredible opportunity to garner even more incredible relationships in and out of the blue jacket.

What is your dream?

Working overseas in an underdeveloped area of the world—is my dream. I hope to eventually be a source of service to people as a missionary for agriculture and faith beyond my time in the FFA.

Lauren Weirup, senior in agricultural and life sciences education from DeWitt, Iowa Iowa FFA southeast vice-president

What do you enjoy about FFA?

FFA is about the journey. There is nothing better than a long road trip with fellow members. My favorite trip was the Washington D.C. Leadership Conference. I met people from around the United States, visited the presidential memorials and spent a service day in a garden gathering food for the needy. While achieving and serving, I developed business and speaking skills that have prepared me for the next chapter of my life.

What is your dream?

My dream is to finish my education and travel overseas to help bridge the gap in communication between the United States

and other less fortunate countries. Basically, I want to help the transfer of technologies and methods from the United States to other countries to help even the playing fields and stop hunger.

Dylan Brockshus, sophomore animal science from Sibley, Iowa Iowa FFA northwest vice-president

Why are FFA conferences important?

During my first semester at Iowa State I really enjoyed hosting several different conferences for FFA Chapter Officers and freshman members. My favorite memories involve meeting people, traveling to FFA events and participating in contests. The contests help students develop leadership and career skills for future endeavors. My favorite was the job interview event, which helped me build skills that I can use when I start my career.

What is your dream?

My dream is to have a lovely family and live in the country raising livestock and advocating for agriculture and agricultural education.

Logan Kelly, sophomore in animal ecology from Coon Rapids, Iowa Iowa FFA southwest vice-president

Why Iowa State?

Iowa State is truly one of the best agricultural schools in the nation. When I am not learning about ecological systems, I break out of my daily routine and try new things. There is always something to do on campus, just being able to explore Iowa State is a journey all its own.

What is your dream?

My dream is to work in wildlife biology and work in the outdoors with America's natural resources. I may get into teaching agriculture or get involved with FFA again as an adviser or alumni member. **S**



Paul Hill (left) and Nathan Hill (right) hosted Dean Wendy Wintersteen, Iowa State President Steven Leath and Iowa Turkey Federation President Noel Thompson (center) at Circle Hill Farms, one of Iowa's 118 turkey farms.

TURKEY HELPS IOWA'S ECONOMY THRIVE

Photo: Contributed

By Darcy Maulsby

The numbers are impressive. Approximately 14 million turkeys will be processed in Iowa in 2014, and 11 million of these birds will be grown in state. This helps drive the economy in Iowa, which boasts 118 turkey farms and ranks ninth in U.S. turkey production.

"When you raise the birds and process them in Iowa, that's where you get the most economic impact for the state," says Gretta Irwin, executive director of the Iowa Turkey Federation.

In 2011, Iowa's turkey industry was responsible for as much as \$1.43 billion in total economic activity throughout the state, creating or supporting up to 6,750 jobs. Iowa State University President Steven Leath and his colleagues, including Wendy Wintersteen, dean of the College of Agriculture and Life Sciences, saw this firsthand when they visited Circle Hill Farms near Ellsworth last fall.

"President Leath and I were impressed by Circle Hill Farm's facilities and the high level of management," Wintersteen says.

Safety first

West Liberty Foods, which is a major supplier to Subway restaurants, also was a highlight of Leath and Wintersteen's tour of Iowa's turkey industry. Since 2003, the company has partnered with Iowa State University Meat Science Extension and Southeast Iowa Area Extension to develop and implement an innovative food safety training program at West Liberty Foods' plant in Mount Pleasant, which produces ready-to-eat products.

The training, which is taught by a West Liberty Foods employee and a representative of Southeast Iowa Area Extension, addresses sanitation, personal hygiene, allergens, foodborne illness, bacteria and cross contamination. Upon successful completion of the training, which includes passing an exam, participants are awarded a certificate and one continuing education unit from Iowa State.

"Since its inception, more than 400 food safety training classes have been taught, and more than 4,600 people have successfully completed the training," says Joseph Cordray, an extension meat specialist. "In 2007

when West Liberty Foods opened a plant in Tremonton, Utah, a similar food safety training program was implemented there."

Partnering for Iowans

West Liberty Foods has long been a leader in food safety, Cordray adds. In 2008, the company co-sponsored a food safety conference with Iowa State and invited other Subway suppliers to attend. "West Liberty Foods' leaders understand food safety issues have implications throughout the industry," Cordray says.

The university's ties with West Liberty Foods continue to strengthen, noted Barbara Anderson, an extension nutrition and health program specialist. "This partnership is a great example of how extension and outreach is putting the university's research and resources to work for Iowans."

The stories of West Liberty Foods and Iowa's turkey industry are inspirational, Wintersteen says. "They demonstrate the importance of processing in Iowa and how agriculture can strengthen our rural communities." ❧



FULFILLING By Teddi Barron
THE FAMILY DREAM
WITH A **MOVE TO IOWA**

A compelling mix of Iowa State University's dairy science program, a historic barn west of Ogden and plain old-fashioned "Iowa nice" was all it took for the Hodges-Tinner family of Hockinson, Wash., to pick up and move to Iowa.

Greg, Margot, Erich and their five horses are among the newest—and perhaps happiest—Cyclones in the Hawkeye state.

Their love affair with all things Iowa started in 2009 during Erich's freshman year in dairy science and animal science at Iowa State.

"The first time I went to the dairy science office, all the faculty flocked to me. It was like being part of a family. Before long, I knew every faculty member and had been to each of their homes," Erich says.

That year, Greg, a retired Realtor, and Margot, a Delta Air Lines flight attendant, visited Ames every chance they got: Cyclone Family Weekend,



Soon after Erich enrolled at Iowa State his parents Greg and Margot Hodges-Tinner decided to make Iowa their home moving five horses and one Brown Swiss from Hockinson, Washington, and renovating a historic barn and schoolhouse in Boone County.



Continued from previous page

dairy science banquet, holidays. Each stay was a “really positive experience.” Soon they bought a house in Ames for extended visits between Margot’s overseas flights (she and Erich are fluent in French and German). They even named their new, red colt Cy.

Erich, an award-winning honors student and self-described multi-tasker, thrived at Iowa State. He was a College of Agriculture and Life Sciences Excellence in Agriculture scholar, a member of the freshman leadership class, Maple Hall president, ag peer mentor and President’s Leadership Initiative Award scholarship winner. Through the college, he studied

abroad in Bulgaria, Ukraine, Scotland and England. Eventually, he will set up shop as a large animal veterinarian—in Iowa.

“For what I want to do in the ag industry, this is the place to be,” says Erich. He never expected his parents to end up here, too. But that’s what happened. Greg and Margot have farm backgrounds and Margot has dairy farming relatives in Switzerland. Over time, they say, southwest Washington has moved away from the ag industry.

“We wanted to live in an environment friendlier to agriculture, horses and farming,” Greg says.

“Iowans are so welcoming and down to earth. If your car breaks down on Highway 30, they’ll stop and help you,” Margot says. “We never worried about Erich coming to school here because the environment is so nurturing and people have such good core values.”

An adventure for the entire family

Erich just completed his first-year at Iowa State’s College of Veterinary Medicine. And Greg and Margot are card-carrying Iowans. They purchased (and restored) that 1906 barn, along with a seven-bedroom farmhouse and a one-room schoolhouse on 10 acres.

They’ve completed the largest indoor horse facility in Boone County. It’s 72 feet by 248 feet and includes a riding arena. Margot, a former 4-H leader and avid equestrian, has opened the arena to local 4-H and FFA groups, saddle clubs and local drill teams to use for practice.

“It’s been a real adventure,” Greg says about the barn and schoolhouse restoration, horse barn construction, house remodeling and cross-country move.



Photos: Contributed

The 1911 house had been renovated to become a bed and breakfast—seven bedrooms and eight baths, but no closets. It was vacant for 15 years and needed to be updated. Now, people stop along the road just to stare at the striking foursquare Victorian with the picture-perfect front porch. The interior of the 1850 schoolhouse, which had been moved from a mile away, was refurbished this spring.

“We took many suggestions about uses for the schoolhouse. We want it to be as authentic as possible,” says Margot, a former schoolteacher.

When news of their renovation hit the press, they were approached by Gary Sobieski from the Correctionville, Iowa, area who wanted to donate a bell he salvaged more than 60 years ago. Sobieski told them, “I have a bell and no schoolhouse, and you have a schoolhouse and no bell. It belongs with you.”

The barn, however, is their work of art and labor of love. Seems the entire family has a soft spot for historic barns like the one Margot’s grandfather had after emigrating from Switzerland. A farm with a historic barn has been her lifelong dream.

“When I first saw this place, I thought ‘Be still my heart,’” Margot says.

They made an offer, but it was turned down. A year later, their Realtor called to say the price had been lowered and asked if they were still interested.

‘Iowa nice’ runs deep

John Paulson was the original owner of the Daniel Boone Trial Farm, as it was known. His Percheron draft horses helped build Highway 169. And he had dairy cows.

“There are so few barns left with this style, structure and quality,” Greg says. “But restoring it was a lot of work, a lot more than we’d planned on. You find one spot that needs to be fixed and then uncover another one. For a while, it was a never-ending project.

“We had a couple of really good contractors who helped. They enjoyed putting the history back into the barn.

It was encouraging to have people who appreciated what we were trying to do,” Greg says.

“We didn’t know any of these people and they were all working for us, doing what we asked. Everything was arranged over the phone or with a handshake,” Margot says. “You can count on people here; they stand by their word.”

Neighbors, too, have pitched in. Literally. When they saw the family unloading hay at midnight, they stopped to help.

“You really can’t find that in other places,” Margot says.

Brown Swiss leads the way home

Erich learned about Iowa State’s dairy science program when he represented Washington as part of its 4-H dairy judging team at the national competition during the World Dairy Expo.

He had a Brown Swiss cow in Washington that made the move with them. She was Erich’s first dairy cow. He got her when she was 7-weeks old. And he says she lived a “very spoiled” life.

“She’d wait for me at the school bus stop and run along the fence to meet me,” Erich says. “She was a big part of my life and we weren’t going to move without her.”

His interest in dairy is what introduced him to Iowa State and his family to Iowa.

“I’d never heard of Iowa State and had never really thought about going half-way across the country to school. But when I looked into colleges, Iowa State kept coming out as number one, meeting all my criteria,” he says.

The Hodges family is spreading the word about Iowa State back in Washington. The former president of Margot’s 4-H Club is now a Cyclone, majoring in biology. And they’ve convinced two additional high school students to join Erich in Ames.

His beloved Brown Swiss cow was known as Sundae. She got to graze the green pastures of Iowa for one season before passing away this winter. The family named their new Iowa home after her—Sundae Morning Farm. 📍

Photos: Contributed



Before



After

This 1850 schoolhouse was moved to the property and restored as part of Sundae Morning Farm.

STORIES ONLINE: www.stories.cals.iastate.edu

Hodges’ barn has been getting a lot of attention in Boone County, including a video feature by Iowa State University News Service and several spots on local television. Go online to view the videos and get an inside look at their farm.



ENRICHING By Haley Cook

RURAL MAIN STREETS

FROM THE GROUND UP



Photo: Haley Cook

Heidi Bell is revitalizing rural Iowa one cup of coffee at a time. Bell ('97 agricultural business, agricultural extension education) is the proprietor of From the Ground, a cozy coffee shop and restaurant tucked in the Main Street square of Leon, Iowa.

Opened in 2010, From the Ground was created to meet a need in the local economy identified by a grassroots effort within the community.

The result is a charming shop: tin ceiling, cheerful decor and well-worn dining room sets for seating. A chalkboard located on the sidewalk lists the day's specials, and the aroma of coffee

Heidi Bell's coffee shop, From the Ground, brings more to Leon, Iowa, than lattes and pastries. City officials say the business has helped revitalize downtown.

Photo: Haley Cook

and baked goods welcomes visitors as they enter. The glass-topped front counter is filled with golden-crustied pies, huge cinnamon rolls and sumptuous scones.

As people enter, Bell greets them each by name and asks about their lives.

"Members of our community are important to me," says Bell. "My staff work very hard to connect with each of our customers to get to know them and provide a warm, inviting place to gather."

Gather, is exactly what locals do at "Heidi's place." Throughout the day all ages move in and out of the shop. Some come to visit with friends. Others grab a quick snack on the way to high school play practice.

"This isn't about owning a restaurant," says Bell. "It's about community and creating a place for people to belong. That's what makes this place so neat. We value your dollar and your personality."

Bell takes supporting her rural community seriously. She sources as many ingredients as possible from local vendors and businesses. The decorations in the shop are made by local artists, and she contracts with a local vendor for her best-selling pies and cinnamon rolls.

She's also the past president of the Leon Chamber of Commerce, a member of the Leon Community Development Corporation, a 4-H leader, the education director of her church's youth group and most recent awardee of the Iowa Small

Business Development Center's Dalziel Woman Entrepreneur Achievement Award. The list of her community service and outreach continues.

"From the Ground adds a fresh face to a dower looking business district. It helps restore the vibrancy and puts the 'main' back in Main Street," says Robert Kilgore, mayor of Leon. "Heidi's business boosts the economic health of our business community, anchors Main Street the way it used to function and keeps our dollars local and supporting the community. We are tremendously lucky to have Heidi as a business owner here in Leon and hope she will give us many more years of her drive and talents."

Heidi began her professional career as a 4-H youth field specialist, which has fueled her passion for community. "Hands are a big part of 4-H; if you have skills and you can help, you should," she says.

Bell's agricultural business degree has come in handy several times with her business venture. "Supply and demand, opportunity cost, supply chain management, all of these are part of my daily life now," says Bell. "My education at Iowa State has prepared me well for my career."

Bell and her husband, Lance ('97 animal science) support college and university programs, are active in 4-H and cheer on the Cyclones with their children. **S**



Photo: Contributed

SUGAR COOKIE BITES

**Heidi Bell, From the Ground
Leon, Iowa**

Ingredients:

1 c. shortening
2 c. sugar
1 c. salad oil
2 eggs
2 tsp. vanilla
2 tsp. baking soda
4 ½ c. flour
2 tsp. cream of tartar
½ tsp. salt

Cream shortening and sugar. Add oil, eggs and vanilla. Add dry ingredients. Place in a greased 10" x 15" pan. Bake 17-20 minutes in a 350 degree oven. Do not over bake. This is a soft cookie. Makes approximately 32 bars. Cool and top with a favorite frosting.

HEIDI BELL'S FAVORITE FROSTING:

Ingredients:

2 c. shortening
2 tsp vanilla
16 tsp water (add more or less to desired texture)
2 lb powdered sugar

Cream shortening, vanilla and half the water. Slowly add powdered sugar. Add remaining water to desired consistency.

CELEBRATING 100 YEARS

OF LEADERSHIP, SERVICE IN AGRICULTURE

By Haley Cook

One hundred years of opportunities, friendship, scholarship and brotherhood gave the men of Alpha Gamma Rho many reasons to celebrate during their centennial celebration in April.

The fraternity for young men pursuing careers in food, fuel, natural resources, life sciences and related fields, has been a mainstay of student leadership and involvement at Iowa State since its charter date in 1914. Known as AGR, the fraternity is the only house on campus to designate membership according to related career interest.

“Our motto is to make better men, and the opportunities for our members are tremendous,” says Eric Peterson, general manager at Summit Farms, LLC. Peterson ('07 agricultural business) served on the centennial planning committee.

As one of the first established chapters in the nation, AGR had humble beginnings

in a rented home on Hyland Avenue in the campustown area. Steady growth allowed the chapter to purchase land and build at its existing location, 201 Gray Avenue in 1921. Since that time, the homestead of AGR has evolved to meet the growing needs of the organization. 2014 house occupancy is 89 students, with 85 initiates living on-site.

AGR's legacy is apparent with more than 800 AGR alumni and guests in attendance at the centennial. Participants celebrated on a grand scale with tours of the AGR house, Iowa State facilities, round-table industry discussions drawing in global agriculture leaders and class reunions.

“This is a celebration of our alumni's continued achievements,” says Chance Wiese, senior in animal science and current president of Iowa State's AGR chapter. He says leadership skills learned in the fraternity during undergraduate years have translated to lifetime success.

The planning committee's vision, almost two years in the making, came to fruition in the Marvin J. Walter and Alpha Gamma Rho Arena in the new Jeff and Deb Hansen Agriculture Student Learning Center. Both the local chapter and many AGR alumni

Members of the AGR Centennial Planning Committee:

- **Tim Heiller** ('90 animal science)
- **John Chism** ('92 agricultural business, agricultural extension education)
- **John Latham** ('92 agricultural business)
- **Gregg Hora** ('82 farm operation)
- **David Shultz** ('64 agricultural and life sciences education)
- **John McClure** ('03 agricultural studies)
- **Eric Peterson** ('07 agricultural business)

supported the facility, says Wiese.

“Hosting the event in the arena was the perfect way to honor the memory of our brother Marv Walter, and to showcase the amazing facility we helped bring to Iowa State University,” Wiese says. Walter ('62 MS animal science) provided the preliminary gift to fund the Hansen Student Learning Center (read more about the center on page 38).

“This organization has created an opportunity for us to impact something larger than ourselves,” says Wiese.

At ISU, AGR members are heavily involved in campus-wide initiatives like VEISHEA, Greek Week and Homecoming. They also are the driving force behind philanthropic projects like “BBQ B4 Books,” an event held to raise funds for Heifer International, a global organization focused on empowering communities to end world hunger and poverty.

Nearly 2,200 initiates have walked through the doors of AGR since its inception. They walk out a member of an on-going legacy providing resources, leadership and brotherhood in agriculture. As Peterson says, “they walk out better men.”

The AGR Centennial brought together brothers from across the decades. John Nissy ('50 agricultural economics) of Iowa Falls; Chance Wiese, senior in animal science, of Manning; Michael Theis, senior in agricultural studies of Riceville; and David Kalsem ('57 animal science) of Huxley were among those celebrating 100 years of service in agriculture.



Photo: Denise Williams

CALS HONORS HARL WITH PORTRAIT

A portrait of **Neil E. Harl** ('55 agriculture and life sciences education, PhD '65 economics) has been installed in the Harl Commons, located in Curtiss Hall. Harl, Charles F. Curtiss Distinguished Professor in Agriculture and Life Sciences and emeritus professor of economics, and wife Darlene were the lead donors for the creation of the popular student-centered space which houses a café, student meeting areas, a public computer bank, lounge seating and study tables.



BLOME SPEAKS AT HERTZ LECTURE

Jim Blome, president and CEO of Bayer CropScience North America, presented the 2013 Carl and Marjory Hertz Lecture on Emerging Issues in Agriculture April 3 on the Iowa State University Campus. Blome's ('85 agronomy and pest management) presentation is available via podcast at www.stories.cals.iastate.edu.



CALS ALUMNI HONORED BY COLLEGE, ALUMNI ASSOCIATION

Many CALS graduates and honorary alumni have been awarded university honors this year for service to the agricultural industry:

CALS Awards:

Floyd Andre Award: David Morrison ('69 food technology, '71 MS chemical engineering), Paradise Valley, Ariz.

Henry A. Wallace Award: Jim Blome ('85 agronomy and pest management), Raleigh, N.C.

Superior Achievement Award for Early or Mid-Career Alumni: Sarah A. Low ('02 public service and administration in agriculture), Arlington, Va.

Iowa State Alumni Association Awards Outstanding Young Alumni Award

- Matthew Leu ('99 animal science, '07 MBA), Pewaukee, Wis.
- Catherine Swoboda, ('08 agronomy, '10 MS crop production and physiology), Des Moines, Iowa

STATEment Maker Award

- Angela (Fredericks) Anderson ('05 public service and administration in agriculture), Ankeny, Iowa
- Janelle Buxton ('05 agriculture and life sciences education), Des Moines, Iowa
- Jill Madden ('10 genetics), Ames, Iowa
- Jeremy Swanson ('05 agricultural systems technology), Lehigh, Iowa

Distinguished Alumni Award

- Gerald A. Kolschowsky ('62 agricultural business), Sarasota, Fla.

Honorary Alumni Award

- Jeff and Deb Hansen Iowa Select Farms, West Des Moines, Iowa
- John T. Pesek, Jr. emeritus professor of agronomy, Ames, Iowa

▶ CLASS NOTES, ALUMNI IN THE NEWS AND MORE: GET STORIES ONLINE MONTHLY

Want to hear what your classmates are up to and get timely news from the College of Agriculture and Life Sciences? Sign up for the monthly alumni e-newsletter *STORIES Online* to keep up-to-date between issues of *STORIES*. *STORIES Online* has class notes, research news, faculty, staff and student updates and notices of college events.



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Photo: Kayla Griener

ARENA FOR LEARNING

By Haley Banwart

Iowa State University is home to an impressive, 30,000-plus square-foot arena and multipurpose learning center. Located on the south end of campus, the Jeff and Deb Hansen Agriculture Student Learning Center is no ordinary classroom.

The facility touts a 125-by-250 foot heated arena with seating for 1,000 people, heated animal holding areas and six climate controlled classrooms that accommodate up to 35 people each.

“The Jeff and Deb Hansen Agriculture Learning Center will be an invaluable

asset for students to sharpen their skills working with, caring for and learning about animals,” says Wendy Wintersteen, dean of the College of Agriculture and Life Sciences.

The Hansen Center officially opened in January 2014 and has been used by the Department of Animal Science to teach courses, labs and training programs. Other events, including the Iowa State University Tradition of Excellence Cattle Sale, the 20th Annual Block & Bridle Cyclone Classic and the Spring Block &



Since it opened in January 2014, the Jeff and Deb Hansen Agriculture Student Learning Center already has hosted the Block & Bridle swine show and numerous other student events.

Bridle Market Hog Show (pictured) also have taken place in the new facility.

The new facility provides the perfect learning environment for animal-human interaction. According to Marshall Ruble, agriculture research station superintendent and facility manager, the Hansen Center is focused on students and their activities university-wide. The versatility of the learning center makes it a great venue for student clubs, judging teams, outreach programs and other public events.

“The Hansen Center has greatly improved the success of our Block & Bridle events,” says Brady Zuck, senior in animal science. “The events run more smoothly due to the exceptional facilities, and our attendance has increased as well.”

The facility has become a competitive recruitment tool for Iowa State. The state-of-the-art technology and multipurpose features of the Hansen Center will create a lasting impression for prospective students. Additionally, the Hansen Center provides another opportunity to show-

case current Iowa State students, clubs and agricultural partners across the Midwest.

“We are now the envy of agriculture schools across the country,” Ruble says. “With this pavilion we can offer students many learning experiences.”

The construction of the Jeff and Deb Hansen Agriculture Student Learning Center was made possible by the donations of more than 150 contributors. The Hansens are third generation family farmers and the founders of Iowa Select Farms, a pork production company headquartered in Iowa Falls, Iowa. The company employs nearly 1,000 Iowans in 46 counties and is known as the state’s largest pork producer and one of the most technologically and environmentally advanced in the country.

The Hansens are recipients of a 2014 Iowa State University Honorary Alumni Award. In addition to the Hansen Center, their support of the Jeff Hansen Iowa Select Farms Pork Industry Scholarship, Iowa Foundation for Agricultural

Advancement Scholarship and the Animal Science Judging Endowment Campaign is transforming the educational experience for Iowa State students. They also have funded research, appeared as guest speakers on campus and hire Iowa State graduates.

“Deb and I were pleased to invest in the future of our state by supporting this project which enhances teaching in animal sciences and agriculture,” says Jeff Hansen. “This facility provides an invaluable learning environment for young people for both coursework and extracurricular events that build tomorrow’s leaders. The construction of the agriculture student learning center makes a compelling statement about the promising futures in animal agriculture and many related fields.” 



Photo: Bob Elbert

Shown outside the Iowa Crop Improvement Association Dean's Conference room in Curtiss Hall with the Cook corn judging trophy of 1904, Jim Rouse (left) and Kendall Lamkey continue the partnership in crop research between the association and Iowa State dating back to 1950.

PARTNERS IN THE PURSUIT OF BETTER CROPS

By Ed Adcock

Iowa farmers long have been driven to improve crop production. They joined together in the early 1900s to form organizations that sought better varieties of corn, more advanced ways to clean and select seed and improved tillage techniques.

And they partnered with Iowa State University to conduct research and expand their knowledge. Statewide corn shows drew farmers to the university's Armory as early as 1904 for corn judging, competition and information.

Those first grower groups shared many goals and eventually combined in 1950 as the Iowa Crop Improvement Association. Jim Rouse ('87 animal science, '90 MS entomology, '04 PhD plant breeding), executive director since 2007, says its long history with Iowa State includes many connections.

Three of the association's board members are from the College of Agriculture and Life Sciences—Endowed Dean Wendy Wintersteen ('88 PhD entomology), Manjit Misra, director of the Seed Science Center and Kendall Lamkey ('85 PhD agronomy), chair of the Department of Agronomy.

The nonprofit organization supports the student crop judging team, offers a

summer internship program, awards several scholarships through Iowa State, funds research and sponsors the Iowa FFA Agronomy Career Development event. Scholarships are evaluated and adjusted depending on the agronomy department's greatest need.

"The association supports the seed industry and agriculture, in general, but it supports the university very specifically," Rouse says.

Lamkey says students in agronomy benefit directly from the association's support. Its sponsorship of the crop judging team reinforces the association's origins.

He also points to connections with agronomy's external stakeholders.

"Iowa Crop helps keep us directly linked with the seed industry, through its role as the official seed-certifying agency for the state," Lamkey says.

Seed certification is required for seed that's shipped internationally. Rouse says a lot of seed beans grown in Iowa are exported to Canada and Europe, with seed corn going mainly to Canada and South America.

The organization's statewide yield test results continue to be a sought-after service by farmers, and this year will

mark its 95th anniversary. It helps fulfill the need for unbiased information on crop production.

"There might have been yield information available before it began in 1920, but that was when it was standardized and centralized. Before it was more of a local endeavor," Rouse says.

Chuck Cornelius ('83 agronomy), president of Cornelius Seed in northeast Iowa, says companies like his rely on the testing program.

"The Iowa Crop Performance Test provides Iowa's corn and soybean growers a much needed, independent third-party testing service and has one of the best reputations in the industry," says Cornelius, a former ICIA board member. "ICIA does a great job testing across the state so growers have local data for their area. The growers who use this data gain confidence to plant new hybrids that will increase their yields." 

STORIES ONLINE: www.stories.cals.iastate.edu

Go online for more information about the association and the Cook trophy.

IN OUR NEXT ISSUE

STORIES

IN AGRICULTURE AND LIFE SCIENCES

MAKING THE WORLD A BETTER PLACE

The next **STORIES** in Agriculture and Life Sciences from Iowa State University will **HIGHLIGHT** a few of the many ways CALS alumni, faculty, staff and students are making our world a **BETTER PLACE**. Stories of lifting others up, finding creative **SOLUTIONS**, inspiring leadership and **EMPOWERING** people will illustrate the breadth and depth of the **IMPACT** of CALS people and programs at **HOME AND ABROAD**.

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PORTRAITS OF IOWA STATE ALUMNI
BY JIM HEEMSTRA

VISIONS:

ACROSS AMERICA

AN ART EXHIBIT IN THE
BRUNNIER ART MUSEUM

APRIL 3 AUGUST 9



PHOTOGRAPHER JIM HEEMSTRA AND IOWA STATE UNIVERSITY ALUMNI ASSOCIATION VISIONS MAGAZINE EDITOR CAROLE GIESEKE traveled to all 50 states and the District of Columbia to showcase and celebrate Iowa State alumni. The spring issue of VISIONS is truly special—the 128-page VISIONS Across America edition—features Catherine Swoboda ('08 agronomy, MS '10 crop production and physiology) and more than 20 other College of Agriculture and Life Sciences alumni. Read more about Swoboda on page 25.

ISU Alumni Association members received this special edition as part of their membership. To become a member visit www.isualum.org/join. Copies also may be purchased at store.isualum.org or by calling 515-294-2648.

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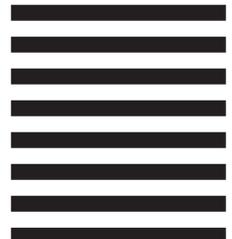
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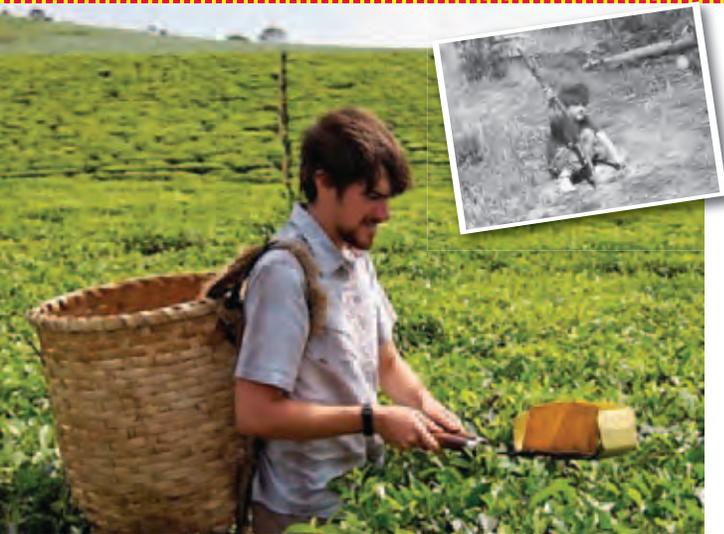


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